REVIEWS.

Article XI. *Outlines of the Institutes of Medicine: founded on the Philosophy of the Human Economy, in Health, and in Disease.* In Three Parts. Should we build facts upon facts until our pile reached the heavens, they would tumble to pieces unless they were cemented by principles.—*Rush.* By Joseph A. Gallup, M. D., 2 vols. Boston: Otis, Broaders, & Company, 1839. pp. 416 and 460, 8vo.

Dr. Gallup has been long known as an author, and in the north-eastern section of our country, as a medical teacher. In 1815, he published a volume of more than four hundred pages, entitled, "*Sketches of Epidemic Diseases in the state of Vermont.*" For many years he has been a lecturer on different branches of medical science in more than one of the Vermont schools; and as "more than seven septenaries of his life," as he tells us, have been spent in the active practice and the diligent study of his art, his name is far from being an unknown or a new one in the annals of American medical literature. He now presents himself to the public with two additional volumes, bearing the old, but to us somewhat indefinite, title of the *Institutes of Medicine*, embracing, we have a right to presume, the final conclusions, the deliberate and digested results of a long and busy life. As medical journalists, we cannot, of course, pass by an original work of such pretensions; and even if our inclinations might prompt us in the present instance to be silent, there is resting upon us a high duty to the profession, which we do not feel ourselves at liberty to disregard. This duty it is our intention now to discharge, fully, faithfull, honestly, in strict justice to Dr. Gallup, and in like strict justice to the profession, so far as upright purposes and such ability as has been vouchsafed us shall enable us to do it. Dr. Gallup's work claims, indirectly at least, to be a natural *system of medicine;* in it he says, the fundamental principles of the science are at stake, and he makes his appeal, boldly and frankly, to the "honest sentiment of the community of medicine," for approval or disapproval of his labour. This is fair, and as one member of that community, we shall take him at his word. As he himself says, "whilst we respect characters, we must be free with principles," and in the animadversions which we shall feel called upon to make on many of the doctrines of his book, we shall aim to be guided by a single eye to truth, to impartial judgment, and to the interests of our science. We have no other purposes to answer, than the attainment of these ends.

The *Outlines of the Institutes of Medicine* are arranged in three great divisions—to wit: those of physiology, pathology, and therapeutics. The subject of physiology occupies 226 pages, that of pathology is extended over 264 pages, and 273 pages are devoted to the division of therapeutics. Nearly one hundred pages of vol. 2d are appropriated to a new system of nosography.

We have but little to say, generally, of our author's physiology, except that we are wholly unable to discover the right of this department to a prominent place, or indeed to any separate place in the *Institutes of Medicine*, as they are called. These, says Dr. Gallup, may be defined as "that science, which embraces a knowledge of diseases and their remedies." This definition makes the *Institutes of Medicine* synonymous with *practical medicine*, and with the *theory and practice of medicine*. If these several terms are not absolute synonyma, then we suppose, that by the former, as contra-distinguished from the latter, must be meant the general principles of pathology and therapeutics, in the abstract, or the philosophy of pathology and therapeutics, and not the knowledge of individual diseases and their treatment. If this is the true supposition, our own opinion of the legitimacy of such a distinction and of the grounds upon which it rests will become apparent in the course of our remarks. In either case, we still fail to see the alleged relationship. Certainly a knowledge of physiology is necessary to a full knowledge of diseases and of their remedies, but no more so than is a knowledge of anatomy or of materia medica. They are all co-ordinate and independent branches of the same science, mutually and intimately related each to each, and each to all, but not subordinated in regular gradation one to another. Dr. Gallup's 226 pages are made up, for the most part, of the simplest elementary facts of physiology, strictly so called, and of physiological or general anatomy, with but little merit either of arrangement or exposition. Such inaccuracies as calling *fibrine*, effused from inflamed serous surfaces, a *dense serosity*, of stating the results of the experimental physiologists in relation to the functions of the different parts of the brain as positive and absolute, we have no wish to single out for special remark. We cannot, however, dismiss this division of the *outlines* without taking a fuller notice of one of its doctrines: indeed, should we do so, our author himself might justly complain of us, since the doctrine to which we allude is evidently one of his very particular favourites. It has reference to nothing less important than the independent and absolute nature, origin and operation of the principle of life; that peculiar and mysterious power, always, heretofore supposed to be associated during this state of existence with organic matter, which has received so many names, and which has been the subject of so much vague speculation and conjecture. Before plunging into the vast inane of the question, "*What is life?*" the Dr. seems to have had some slight misgivings—not as to the ability of the air, into which from his philosophical heights he was about to launch—to uphold his waxen wings, but as to the opinion of his fellow mortals, standing on the solid ground below, of the safety and sanity of the enterprise on which he was about to enter. "It appears," he says, "that philosophers are required to have every thesis guarded, and supported by demonstrations drawn from tangible experiments, and so conclusive as to compel assent; that nothing can be taken on trust, or by analogical induction. These lines have of late been drawn so straight as to impede investigation on subjects, which in their nature cannot admit of mathematical or chemical demonstration. However, it may be noticed, that undeniable facts may be well shown by a series of circumstantial and analogical indications, which may compel the assent of the mind as certainly as direct testimony, and so it is now held and practised in courts of judicature." But Dr. Gallup is not a man to have his investigations impeded by these straight lines of this modern logic; his is not a genius to be cramped in a pestle and mortar, and the fruits of this high soaring are the doctrines which we proceed to state.

The vital principle, or as Dr. Gallup calls it, the *vital entity*, is not an "*evanescent nihility*," the result of organization, or its inseparable dependent, but an exquisitely subtle essence, gas, aura, or spirit, existing by itself, co-eval and co-extensive with the existence of matter, and constituting, when attached to matter, manifest, organic life. This principle pervades universal nature, and is ever ready and on the look out for an opportunity to attach itself to "certain molecular forms of matter," by which union it is enabled to enjoy and to manifest its peculiar properties and phenomena, or in other words *to live.* "The myriads of myriads of ephemeral insects that darken the air, or of reptiles which separate the foot of man from the surface of the earth, all springing into life at the same time, and simultaneously giving up the ghost and becoming extinct," cannot be accounted for, we are told, on the supposition of a seminal or a sexual origin. They are the result of the coalescence of this vital aura with the molecular forms of matter, the products, in short, of what has been called spontaneous generation. As illustrations of the action of this principle we are referred to the proofs furnished by the fossil osteology of some of the early geological formations, of the former existence of animated tribes which have long been extinct, and of the subsequent creation of others, "so far as can be discovered," says Dr. Gallup, "without a direct seminal origin." We are further referred to Genesis for evidence of the reality of this "universal generant influence." The doctrine is gravely argued from the phraseology of the Mosaic account of the creation, and thus this sublime and mysterious act of Jehovah himself is seriously attributed to the agency of a fecundating principle, or germinating aura. We have no intention of so far presuming upon the patience and good nature of our readers as to reply to these worse than ridiculous fancies. It is quite enough for us to state them. They have but one parallel, that we know of among modern works of science, and this is to be found in Mr. Kirby's Bridgwater treatise, a book, the preliminary chapters of which are more crowded with concentrated folly and sublimated nonsense, than any thing else of the present century, that has come under our observation. Our author could hardly have been aware of the existence of Mr. Kirby's speculations. He could not have been so unkind as to have passed them by without any tokens of recognition. Mr. Kirby is of opinion, that all parasitic animals infesting the human body—in vulgar phrase, lice—have been created at different times, since the fall, in order to punish and torment men for their sins. Le Clerc and Bonnet, it seems, thought it more probable, that all these worms existed in Adam before the transgression, under the form of eggs, which did not hatch till after that event. How many difficulties, which must have perplexed the mind of the learned British naturalist, philosopher and divine, would have been removed, had he only been aware of the existence and the properties of the "universal generant influence, or germinating aura?" There is one other attribute of this vital entity, which we have not yet spoken of, and which, trusting only to our *à priori* reasoning, we should hardly have looked for. It seems to be a fountain sending forth bitter as well as sweet waters, a vine bringing forth thistles as well as grapes, a tree of death as well as of life. Dr. Gallup suggests, that epidemic constitutions of the atmosphere may consist simply in an undue and extraordinary concentration and accumulation of this subtilized aura, and as a sort of support to this suggestion, we are told, that attacks of severe disease are often preceded by a state of high and refined health in the individual, and that the prevalence of the plague is attended with increased activity of the sexual appetite!

We are sorry to be under the necessity of convicting Dr. Gallup of plagiarism in this last matter. We would not willingly pluck so green a leaf as this, from his philosophic garland; but the heart-hardening obligations of justice and criticism, leave us no alternative, and we must proceed in our painful duty. It is well known that, during the last seven or eight years of the eighteenth century, the yellow fever prevailed very extensively and fatally in most of the large cities along our Atlantic coast, and that a great deal was written in relation to its causes. Among other works upon this subject, was one published in New York, in 1798, entitled a "*Physical Inquiry into the Origin and Causes of the Pestilential Fever.*" The author thinks that the ancient doctrine of the four elements is right, as far as it goes, but that two others ought to be added. One of these is electrical fire, and the other is a *universal agent*, which he calls *mother*. This *mother*, he says, *is the great agent of vegetable and animal life.* He says that it differs essentially from air; that its native region is the surface of the earth; and that it does not descend deep into the earth, but by compulsion, although at times it is forced very far downwards; but that, even if it should be drawn to the centre of gravity, or to the bottom of the ocean, it will eventually make its escape, and rise to its natural station upon the surface again. This *mother*, he adds, commonly rises pure, but it sometimes gets contaminated by combining with other things, especially during the putrefactive process, while the hot season prevails. The *mother*, thus vitiated and venomous, rises up, defiling the earth and water through which it passes, and by its action on the human system, occasions pestilential fevers. The identity of doctrine here is manifest, and our author's claims to the distinction of discovery must be wholly abandoned, unless the result of another Leibnitzo-Newtonian controversy should show that the glory really belonged to both, both having arrived at the same great result independent of each other.

Leaving the physiological portion of the book, we at length arrive at more inviting regions; and we are ushered into the province of pathology with a flourish of trumpets of no equivocal or uncertain sound.

> "In the outset," says Dr. G. "we indignantly repel the trite, sarcastic inuendoes, which have so often uncourteously been cast by many; by direct allusions to theorems advanced, having been formed from lamp-light cogitations in the closet; and the bending of facts and analogies to support a favourite hypothesis. We have been inducted by another, and more hardy routine of study. And, from the full conviction of the insufficiency of every generalization hitherto attempted, have re-explored the chartless empire of medicine; and wishing to save it from the quicksands of empiricism, have made many comparisons in the open air, in the dissecting room, and at 'the bed-side of the sick.' Having a few incontrovertible data, as polar stars in view, we have *endeavoured* to form inductions, which will not readily be dissipated by the fire of experiment. If the arrangement is new, it is supported by facts not altogether novel.

That this is no fanfaronade, is immediately manifest on turning the leaf which contains it, for directly on its opposite and corresponding surface, we have the annunciation in three pregnant lines, of the great fundamental principle of pathology, so long sought, and so late discovered—a principle which is to be to the physician what the Newtonian law of gravitation is to the astronomer. The two pages stand in beautiful relation to each other; the latter fulfilling all the high promise of the former—"fit body to fit head." The following is our author's statement of the new doctrine, which is to lead the bewildered pathologist from out of the intricate and labyrinthian paths in which he has so long and so blindly wandered—baffled and sore perplexed—up into the light and sunshine of the perfect day.

> "The excellency of Sir I. Newton's improvements in physics, does not consist in having discovered the principle of attraction inherent in inert matter, but in having shown that attraction *acts directly in proportion to the mass of matter, and inversely as the distances.* Is it not possible to offer a clew, which may lead to an unfolding of the laws of organic life upon an axiom almost equally simple in character and construction, and which may serve as a guide to the pathologist, through the intricacies of his searches in relation to disease! *The vital force responds directly in proportion to the integrity of the organization, and is equivalent to the compatible or incompatible range of stimulations applied.*"

We hope that no pathologist will hereafter suffer himself to be troubled with foolish and unreasonable doubts in relation to any of the questions which he is called upon to answer. The *open sesame* is here put into his hands, and it is his own fault if he does not unlock, with its magic power, the doors which have hitherto barred him out from that region into which he may now enter, to clear up the mysteries of disease, and to unfold the laws of organic life. The great elementary pathological axiom is at length established; the formula, by the application of which, all the manifold, confused and ever shifting phenomena of disease shall arrange themselves in harmonious order, and refer themselves with quick and infallible certainty to their simple and ultimate causes is finally discovered, and it is this: "*The vital force responds directly in proportion to the integrity of the organization, and is equivalent to the compatible or incompatible range of stimulations applied.*"

Like a faithful pastor, who avails himself of any striking or unusual visitation of Providence, to impress upon the hearts of his people, the truths and obligations of his faith, we take this occasion to enforce upon our readers, the immense practical value of great pathological principles like that just stated. It must be borne in mind, that Dr. Gallup's work is "founded on the philosophy of the human economy, in health and in disease." He rests his rules of practice on his doctrines of morbid action. His therapeutics is deduced from his pathology. He is a rationalist and no empiric. Now who can fail to see how naturally the only true method of treating—not diseases, but disease and all disease, flows from the above pathological axiom! Who can doubt after this is once clearly and fully comprehended, whether Dr. Gallup's treatment of typhoid fever, or Dr. Miner's, is right? Who can hesitate any longer between quinine and blood-letting in erysipelas? Of what use are all these statistics, and this irksome, drudging, endless study of positive results, this counting and weighing of cases, when the whole matter can be thus packed into a nutshell? How much easier it is to be governed by these rational principles, than it is to attempt to follow the uncertain and contradictory guidances of experience! Henceforth, then, if a physician who may be visited with such misgivings as have heretofore at times beset even the best of us, should have any doubts as to the safest management of his patient with rheumatism, or typhus, or phthisis, let him turn away from the fallacies of observation, to that oracle of medical science which has been the text of this commentary, and he shall doubt no longer; his knowledge shall be clear, absolute and complete.

The pathological division of the work is arranged under three separate heads. These are *pathology* strictly so called, *etiology* and *semeiotice*. The first subdivision contains eleven sections, some few of which, in the prosecution of our design, we now proceed to notice. The second section of this subdivision, and the fourteenth of the book, has for its title "*What is Disease?*" a question that has answered the excellent and profitable purpose of tasking and baffling the ingenuity of medical systematists, from the time of father Galen, or earlier, down to that of Dr. Gallup. To whom, among the countless multitudes who have tried their wits at the verbal defining of a subject, which, for all practical ends every body understands, belongs the palm of victory and success, we shall not undertake to determine. That our author is at least as happy in the framing of a definition as he is in the conception and statement of a principle is abundantly shown in the present instance. The following are his words:—"*With respect to a short definition of disease generally, or the morbid habit, we might say that it consists in a manifestation of a series of phenomena, indicative of the repulsive powers of the instinctive energies of the living system.*" This is certainly very clear.

The four sections, from the sixteenth to the nineteenth, inclusive, we shall pass over. One of the leading objects of the pages occupied by these sections, is to establish the doctrine of the *nosodynamic* character, as Dr. Gallup calls it, of disease. He regards all disease as essentially sthenic in its nature.

The twentieth section has this question for its caption:—"*Is disease produced by extensive constitutional changes, and thence forming local concentrations; or does it originate at some tissual point, and from thence radiate over the entire organization?*" The doctrines which it is the purpose of this section to establish, may be thus briefly stated. All disease is primarily general. Local affections are a result, and not the original cause of the general excitement. The former depend upon the latter; the latter does not depend upon the former. The local lesion, in all cases, acute and chronic, is only a concentration of the general nosodynamic force, as Dr. Gallup calls the constitutional disturbance. This nosodynamic force cannot act for any considerable time, without being accumulated upon some focal point, and after it has thus fallen upon some organ, or tissue, then there is a reflex or reverberating action of greater or less intensity, according to circumstances. The radiations of local injuries or irritations over the system, are transient in duration, and trifling in effect, unless a morbid habit exists at the time, or directly supervenes; and in this event, they become the foci of the general diseased state. The capital leading points of Dr. Gallup's system of pathology, are then these two;—the sthenic character of all disease, and the secondariness or dependence upon a general morbid habit of all local affections.

We have no wish to visit these doctrines with undiscriminating censure. The chief objection to them consists in their claims to absolute and universal application. Dr. G. has here fallen into the common error of those who endeavour to establish any other principles or axioms in medical science, than such as are the natural, necessary, inevitable expression of facts, correctly estimated and analyzed;—that of premature and gratuitous generalization. As a positive generalization or law, as a universal fact, the foregoing doctrines are false; at any rate their truth is not demonstrated. But that as pathological views they are true to a certain extent, in relation to many morbid conditions, there is good reason for believing. That they are true to a much greater extent than is now generally admitted, we certainly shall not deny. We do not think that this is a case where positive and dogmatical assertion, either one way or the other, is allowed by the spirit of a true philosophy. But we are ready to admit, that the same philosophy may justify us in the cautious formation of mere opinions. And we think that the doctrine of the constant and essential locality of disease is by far too generally adopted. This is one of the fruits of the Broussaisean system. As a natural result, the condition of the general habit in disease has been, we think too much disregarded. In our exclusive thoughts of the local and more easily appreciable lesion, we have forgotten the constitution itself. In our search for the tubercular deposite, and in our study of its phenomena, we have too much overlooked the depraved condition of which the former may have been only the consequence. It is in this respect, especially, that the English practice seems to us superior to the French. In this country the doctrines of Abernethy have been too much superseded by those of Broussais. Dr. Gallup's views in relation to phthisis appear to us in this respect very just. He considers the general state of the system, or the morbid habit as the primary and seminal element in that complex pathological condition constituting the disease.

Lest some of the above admissions should seem to any of our readers to be inconsistent with the strong and earnest language that we have heretofore made use of in deprecating all departure from the study of any thing but the actual phenomena of disease, we will add that we go no further than a rigorous and philosophical interpretation of all the phenomena will safely bear us. And even here, we state the case only as a reasonable interpretation of a series of facts, not as a fact itself—a probably correct induction, not a necessary and demonstrated result. To this kind of reasoning we have no objection. In many instances we can hardly avoid indulging in it. *How is this?* and *why is this?* are questions that will intrude themselves at times into our presence, and wait there to be answered. For instance, in phthisis, to which allusion has just been made, the first, essential, legitimate objects of investigation are its phenomena, its natural history—its hygiene and its therapeutics. Its causes, its signs, the state of the organs, its prevention, its cure—these are the leading subjects of our research, and they are to be ascertained, not from the physiology of the body, not from any real or assumed knowledge of the intimate properties and processes of the ultimate organization, but from the simple, vigilant, long-continued study of actual appearances. Then there are certain results that are inevitable, that flow, naturally, spontaneously, from the data so obtained, and about which there will be no more controversy or difference of opinion, than there is about the ascertained properties of inert matter. Such are the influence of climate, season, locality, age, sex, occupation; the symptoms, the lesions, the mortality, the effects of medicine and regimen, and so on. All this constitutes the natural history of the disease, and for the most part, and in relation to most diseases, our self complacent boasting to the contrary notwithstanding, it is yet very incomplete. After this is ascertained and settled, or during the process of its investigation, we may, if we choose, still in the spirit of a sound philosophy, admit other inquiries, such as these;—*what is the nature of this morbid habit? what is the nature of this local lesion? what are their mutual relations? which is cause, and which is effect?* But let it be ever remembered, that these matters are always to be kept in subordination to the first. They are to be deduced as more or less probable, only, from the first and the only positive results. They are explanations of facts, not facts. They are interpretations of appearances or phenomena, not themselves appearances or phenomena. They are legitimate *hypotheses*, but they are not *laws*.

Above all things, let us understand that the practical rules which are to guide our conduct in hygiene, diagnosis, prognosis and therapeutics are to be drawn exclusively from the former class of facts, never from the latter interpretations and philosophizings. In the treatment of phthisis, we are to be governed by the lessons of experience and not by our opinion of the sthenic or asthenic, the local or constitutional character of the disease. In the trial of new or modified processes of hygiene and therapeutics, we may be influenced by these interpretations and opinions, if they have been carefully and rigorously deduced, but they can do no more than to furnish us with hints and suggestions. They give us no positive knowledge. Broussais and Gallup regard phthisis as an inflammatory affection. One of them looks upon it as a local, the other as essentially a general disease. Louis does not believe it to be inflammatory in its nature; at least he denies that there is any satisfactory evidence that it is so. Dr. Rush, Tully, Miner, and others call it a disease of debility, and if the popular doctrine, that our therapeutics must be *rational*, as the phrase goes, that is, that it must be deduced from our pathology, be correct, and if each of these disciples of so many different schools, if each of these contradictory translators and interpreters of the same language, is consistent in his conduct, he must treat the disease according to his own views of its nature, and in no way else. Broussais must leech and blister the chest, Gallup must bleed from the arm, while Rush, Tully and Miner must give bark, wine and iron. Dr. Gallup indeed, while speaking of the importance of forming correct opinions about the constitutional character of disease, expressly declares, in the work before us, that "those who are vascillating in opinion will always be the agents of mutable and inefficient treatment; *whilst those who embrace wrong theorems will use improper remedies.*" But after all, exactly how far Dr. Gallup's treatment is really based upon his theorems it is somewhat difficult to say; and the same thing is true of the whole class to which he belongs. Dr Miner, who may be considered, in connexion with Dr. Tully, the leader of a medical sect directly opposed to that of Dr. Gallup, in almost every point of doctrine, and of practice, is evidently enough, more or less governed in his therapeutics by his notions of the nature of disease. A comparison of the opinions and practice of these rival teachers would constitute a curious chapter in our medical history, and furnish, also, abundant and most apposite illustrations of the subjects which we are now considering. Both, for instance, boldly assert the curability, in their hands, of phthisis. Dr. Gallup says the disease is inflammatory, sthenic, *nosodynamic*, and that it can be removed only by general bloodletting, emetics, external warmth, and so on, with this essential condition, that all narcotics, and opium, especially, are withheld. Dr. Miner says that calomel, opium and sanguinaria, with a suitable course of mineral tonics are almost specific in its cure. In the hands of Dr. Gallup, all our diseases are sthenic and are to be cured only by active, antiphlogistic treatment. In the hands of his rival, they are all asthenic, and tonics, stimulants and narcotics, with a scrupulous avoidance of the lancet, and of all debilitants and refrigerants constitute the only true or safe method of management. Dr. Gallup's heroics are bloodletting, emetics and warmth. Dr. Miner's are calomel, opium, alcohol, capsicum, ammonia, arsenic, phosphorus and blood root. Calomel and opium, says Dr. Miner, in acute febrile diseases, are of greater service than all the other articles of the Materia Medica. Both these articles, says Dr. Gallup, have been the occasion of more injury than benefit. Bleeding and antimony are in the hands of Dr. Gallup universal and all-powerful means of salvation to his patients. "The lancet," says his rival, is a minute instrument of mighty mischief, a weapon which annually slays more than the sword. "Antimony alone," he continues "does more injury than all the efficient exciting and supporting agents of the Materia Medica. The king of Great Britain, without doubt, loses every year more subjects by these means, than the battle and campaign of Waterloo cost him, with all their glories." Both Dr. G. and Dr. M. appeal it is true, to the results of their treatment in proof of its efficacy, and we are ready to admit what we really believe, that the true grounds of their confidence in their respective modes of management are to be found, more than they themselves are aware of, in their own experience. But, nevertheless, we can have no hesitation in saying that their strong blind faith in exclusive and hypothetical systems of medical philosophy has infused unsoundness and uncertainty into the only true sources of all therapeutics. Even the great and sagacious Sydenham, although he reversed the order of this vicious mode of reasoning, and deduced his theory of disease from the observed effects of his methods of management, was evidently influenced in his practice by his pathological speculations. His notions of morbid action, after having been derived, in part at least, from the apparent effects of remedies, reacted upon his therapeutics; they dimmed the clearness of his perceptions, they warped his judgment, and they acted unfavourably upon his practice.

Is it not clear, that in all these cases, that in all like cases, the whole process of procedure is wrong? That such is our conviction needs now hardly to be said. We have expressed this conviction at length, here, because Dr. Gallup's book presents one of the most striking examples, which the last hundred years have given us, of the philosophy and views which we have been endeavouring to controvert. We have expressed our convictions earnestly because we think them not only true and sound in themselves, but of great practical importance. If the Sydenhams, the Gallups, the Tullys, the Miners, if the oracles and teachers in our temple are not safe from the bad effects of their own false philosophies, how can it be expected, that the great body of us, who are wont to look to them and to their compeers for light, instruction and guidance, shall escape from the same malign and disastrous influences?

We resume our analysis, and leaving the remaining three sections of the subdivision of pathology, we come to that of etiology, to which one hundred pages are devoted. This subdivision, taken as a whole, is written, we think, with more straight forward sense and ability, than the preceding portions of the volume, although it is far enough from being exempt from the kind of faults of which we have already spoken so freely. Many of our author's views of the causes of disease are such as are generally received. Others are somewhat peculiar to himself. In his twentieth section, of more than twenty pages, he attempts to disprove the existence of any thing like local miasmata or atmospheric contaminations, as causes of disease. We have failed, however, to discover sufficient ground, either in the author's facts or arguments, for his denial of the existence of a deleterious principle, acting within circumscribed limits, much as the more general cause or principle, to which the term epidemic is applied, acts over more extensive and wide spread regions. We do not see, that any very well defined or cardinal difference has yet been shown to exist between these two causes, the local miasmatic, and the more general epidemic. Dr. G. thinks that many of the effects, which have been commonly attributed to the decomposition of animal and vegetable matter, and to malaria, depend solely upon sensible, meteorological influences. This is a fair subject of discussion, but one in which it is not our intention now to engage. Dr. G. admits the existence of a general, epidemic constitution of the air, or as he calls it, a general atmospheric pestilent afflatus, and the intimation is here again thrown out, that this invisible and mysterious agent of disease and death, this inscrutable and terrific UNKNOWN is only an excess of that all pervading aura or entity of which we have before heard. Our author has modified his views on this subject since the publication of his work on epidemic diseases in 1815. He then referred this pestilent afflatus to some electro-planetary operations, the nature of which is a good deal less intelligible to ourselves, than he would then have had us suppose it was to him. The electrical fluid, he then thought, "was the *vinculum*, or connecting medium of the fragments of universal nature, by whose pre-eminent powers of attraction and repulsion, the planets were kept in their orbits, and performed their revolutions, and by which even the comets were recalled from their distant wanderings, to revisit the sun, and to become visible to the inhabitants of our earth." This strange fluid, thus unceremoniously, with the doctor's aid, usurping the sceptre and dominion of gravitation, by the help and co-operation of "changes depending on the conjunction and opposition of the planets," kindled up, according to him, the pestilent afflatus. Such was the doctrine of 1815:—Alas! that these systems of indigenous philosophy should be so unstable and evanescent! The chain with which our Dr. Webster essayed to bind together plagues, and pestilences, and earthquakes and comets and volcanoes, proved to be of no adamantine materials. Long ago, it snapped asunder, and all the multiform and appalling horrors, all the gorgons and hydras and chimeras dire, which he had attempted to fasten to it, in most unnatural and monstrous association, flew off again, each to its own region, to render allegiance to its own sovereign and independent laws. And then the learned and many titled Dr. Mitchell's doctrine of SEPTON, built up, as he fondly imagined, on the solid basis of ancient lore and modern science, graced with the metaphorical drapery; and embalmed in the artificial amber of Darwinian verse; that also is gone, and now we find this electro-astrologic theory of Dr. Gallup's, abandoned and left to its early fate, even by its own author. *Sic transit, etc.*

Semeiotice, the last subdivision of the pathological portion of the work occupies the first seventy pages of the second volume. When we say that it treats of the phenomena *of disease*, and not of separate diseases, of the morbid habit and not of any individual affection, we have said enough to show how entirely destitute it must be of any practical value. It is not exactly correct, even, to say that it treats of the *phenomena* of disease. It treats rather of the supposed philosophy or *rationale* of these phenomena, and so far, is less useful, than it would have been, had it been confined to a strict exposition of some of the generalities of morbid manifestations. Instead of making any analysis or commentaries, we will copy the titles of the sub-sections of the first section, in the order in which they stand, and also a page or two of the text. The titles are as follows; *Preliminary remarks:—Harmonies existing in disease:—Anomalies of the phenomena:—Contingent phenomena:—Three series of phenomena:—Reflections on the first series—predisposition:—Shrivelled aspect, paleness and faintness:—Chills and rigors:—Paroxysms, and their periodical return:—Cold sweats:—Diarrhœa serosa:—Diabetes simplex:—Inordinate flow of bile:—Cardiac and arterial action:—Primary coma.*

Under the last title, Dr. G. says, "Primary coma arises from any cause that suddenly occasions an exhaustion of vital force, by stimulation; or from accumulations of blood in the venous radicles producing congestions in the cerebrum, in which event the nervous force of the intellectual organs is partially intercepted for a time. The same circumstances occurring in the cerebellum occasion lassitude and paralysis; yet, if they should be of an irritating kind, convulsions might attend. Even congestions in the cerebral tissues may induce the same results, when they are sufficient to produce a perpendicular pressure on the cerebellum."

In the following extract we have Dr. G's views of the causes and nature of the difference between the synochoid and the typhoid diathesis. We hope, that in justice to themselves and to the author, our readers will study this extract as faithfully as we ourselves have done, that they will comprehend it as clearly, and that they will gather from it those rich lessons of practical wisdom, which will enable them readily to distinguish between a sthenic and an asthenic habit, and so to adapt with more accuracy and certainty their course of treatment to the case before them.

> "In prosecuting the inquiry," he says, "we shall need to be reminded of certain pathological theses, which are well established, and we shall, therefore, not stop to prove them. One is, that every inordinate impression on the tissues, if even through the mind, which is capable of altering the functions, is directly followed by a retrocession of fluids from the surface to the central organs and tissues. It is attended with anæmia externally, and hyperæmia internally. This will hold good from syncope up to apoplexy. Although the period may sometimes be very short, between the impression and the return of circulation in quick responding habits, yet the change has existed in some degree.
>
> "The principal physiological force existing, which must give energy to the vascular tissues enabling them to restore the equilibrity to the surface, must be the visceral ganglia and their nerves, since they accompany the arteries into their dermoid capillaries.
>
> "Let us now recall what has been amply proved, that early in every severe disease the internal capillary vessels are fully distended, and engorged, whilst anæmia exists on the surface. And, also, the physiological fact of the ganglia, and their plexuses being vascular; together with the pathological fact of these ganglia being found engorged in the numerous examinations of fatal typhoid cases, and the proposition appears to be established, that the derangements have produced an inability in the capillary circulations, and this is the immediate cause of the typhoid state. A similar derangement in the encephalon produces coma, paralysis, and perhaps apoplexy, attended with a failure of functions.
>
> We have now found certain derangements in the circulations, sufficient to

account for the phenomena presented, and the circumstances which produce these derangements have heretofore been amply discussed.

"We will, however, concede, that what has been advanced may be common, in greater or less degree, to both the diatheses; and the inquiry must still be extended, viz. What makes the difference?

"We assume it as a fact, that those cases which afford the clearest manifestations of a typhoid diathesis early show the most of an anæmic state of the surface; and the inference must be, that these cases have the greatest burden of internal hyperæmia also; and this is in conformity to autoptical inspections.

"We improve, also, another fact, that the causes are more impressive under some circumstances, than others; and, also, that they make greater impressions on some less resisting subjects, than on others.

"What has been advanced may not only be considered as facts, but as universally so. With this assurance, we will introduce another entitled to equal credit; which is, the lively susceptibility of some temperaments enables the tissues to respond more readily, and energetically, than others to every injury offered them; and in disease severe stimulations have been presented. These early responding actions restore circulation in some degree, both arterial and venous, if not perfectly; and in sufficient season to save the paresis of the ganglia, which must take place, if the enthralments at the attack are continued. The circulation will now be more free and intense, in proportion to the severity of the impressions, and vascular force of individual idiosyncracy, if all other things are equal.

"It is supposed this state of things may take place spontaneously, and without the assistance of art, which is often the fact and most generally so. The pathological processes now go on exhibiting that train of phenomena, which indicates the condition called the *synochoid diathesis;* viz. heat, pain, redness, thirst, hard, and often throbbing pulse, capillary circulation free, wakefulness, with liability to delirium, fixed location with pain in some organ or tissue, blood on venesection quite florid, having a fibrinous crust, and cupped.

"In analyzing the other limb of our subject, we merely need to make the relative inferences from the principles advanced. The blood is not early restored to the surface, either by nature or art, it is not aerated in the lungs, nor is venous absorption excited sufficiently. The ganglial nervous force, including the internal respiratory, is so far paralysed, and the tissues held in such rigid durance, that the recuperative powers of the economy cannot be excited to afford seasonable aid; for, the primitive or first grade of vital energy of tissues holds the nervous force in restraint by its acquired, or nosodynamic influence. It may be held until all functional action ceases; but this is supposing an extreme case. It most commonly falls out, that the responding impulses are drawn forth, but in an imperfect manner, and this gives occasion to the typhoid state.

"The circulations, with all their relative associations, are but imperfectly performed, when compared with the expanded state of the synochoid diathesis, with arterialised blood. The congestive condition of capillaries internally and externally still remains, at least in some considerable degree. The state of the ganglial, or as combined with other nervous force constituting the nutritive system, bears some resemblance to that of the encephalon in hemiplegia, half active, half dormant. The circulations which do appear are wont to be irregular; forcible in some organs, with heat; whilst in others coldness, and inactivity exists. The same disparity is seen in the nervous functions of external relation; plain specimens of ataxia. There exists uncommon prostration of muscular power, with sometimes spasmodic jerks; inability of mind, with coma-vigil; pulse feeble, and frequent, say one hundred and twenty or one hundred and forty in a minute; surface pale, or often dusky, sometimes with petechiæ, vibices, &c., appearing, also, in the internal tissues; blood dark, and mostly destitute of the fibrinous crust, and scarcely coagulating. This train indicates the *typhoid diathesis*, in its highest degree; yet, it often appears with far milder phenomena. p. 66—69.

After concluding what he has to say on semiotice our author presents us with a new system of nosography adapted to his own views of disease. We shall not trouble our readers with any accounts of this new entry for the barren prizes of nosological distinction. That it will soon follow in the multitudinous train of its defunct and departed predecessors, to an early and unlamented exit, it requires no great foresight or sagacity to predict. We shall pass by this portion of the work with the single remark, that even if those systems of classification, which have been most generally received, were less arbitrary and artificial in the principles of their construction, than they are, there would still exist an obstacle in the way of their correctness and completeness, wholly insurmountable. This obstacle consists in our yet imperfect knowledge of the diseases themselves, which are to be the subjects of nomenclature and arrangement. Almost every individual disease is to be characterised, and must be defined, not by some one peculiar element or phenomenon, but by the combination and succession of all its elements or phenomena. This requires, that as an indispensable preliminary to the location of a disease in any system of nosography, the whole natural history of the disease should first be ascertained. This knowledge, we have just said, is still incomplete, and at the time when the most celebrated and popular nosologies were framed, it was exceedingly so. What other, than a provisional and temporary position, could even Cullen and Good have assigned to those diseases which are now most thoroughly and fully known? What means had they for establishing the true places, and giving any thing like full definitions to apoplexy, pleurisy, pericarditis, phthisis, and our typhoid fever, before the researches of men now living had been made? We can have no sound and permanent method of arrangement any sooner or any further, than we ascertain the entire natural history of the several diseases, which are to be the subjects of classification.

The remainder of the work, amounting to 274 pages, is devoted to therapeutics. Diseases, as they are considered under this head, are arranged in four orders. In the first order are included synocha, phlegmasia dolens, rheumatalgia, and all the simple phlegmasiæ. This order, according to Dr. Gallup, is made up of the diseases of the *fibrous tissues*. In the second order, said to consist of diseases of the *mucous tissues*, are placed synochus, catarrh and influenza, bastard peripneumony, phthisis, hooping cough, and hemorrhages from mucous membranes. Order third professes to embrace affections of the serous tissues, and the diseases enumerated under it are *typhoid fever*, and dropsical effusions. Diseases of a complex character, affecting *many tissues*, make up the fourth order. They consist of the malignant epidemics.

Dr. G. states, in another place, that the diathesis depends upon the *tissual* seat, as he calls it, of the morbid concentration. He says if the tissue upon which the weight of the morbid habit primarily and chiefly falls be the fibrous, that the diathesis will be of the pure synochal character; that if the tissue be the mucous, the diathesis will be mild synochoid; that if the tissue be the serous, the diathesis will be mild typhoid, and that if many tissues are implicated, the diathesis will be grave, malignant typhoid. The grounds of this generalization we must leave our readers to discover; they are not stated by the author and they are wholly unknown to ourselves.

We shall extract from this division of the work a few such portions as may possess interest and value in themselves, and serve, at the same time, to exhibit to our readers the practical views of the author. We copy, in detail, his treatment of what he calls synocha, and we do this because it covers nearly the whole ground of his therapeutics. With some modifications it is adopted by Dr. Gallup in most of the diseases, which it has fallen to his lot to manage.

"If a patient is early visited, and before the repelling force has established vascular action on the surface, then this ought to be encouraged by caloric applied in some agreeable form. No method can be more useful than the warm bath at a temperature of about 98° or 100° of Fah., but this should be accommodated to the patient's feelings. This is often inconvenient and of slow preparation. Then let the patient's legs and arms be bathed in warm water; and if not sufficiently warmed, as he lies in bed apply mild steam of water, more or less, over the body, by processes well known. This is a preparatory process; but care should be taken not to carry it to a great extent, especially if sweat does not flow.

"If the sweat should be urged hard, and continued, there will be danger of the capillary arteries forcing the blood into the interstitial spaces, and producing lesions of circulation, occasioning petechiæ, or at any rate sudamina, and attended with worse effects in the nervous tissues.

"If the patient should be already hot, and skin dry before visited, then merely bathing the legs and arms in warm water will be sufficient. In either event, the first internal medicine except some mild aromatic infusions, will need to be for an adult, about a grain and a half or two grains of tartarized antimony; or about ten of the antimonial powder, or phosphate of antimony.

"The patient will be prepared for the next remedy in about an hour, after taking the antimony; and then, unless, peradventure, there should be a free sweat, and mitigation of pain, venesection should be practised. If this should be the case, the sweat should be continued, and observation made how far it may be relied on in affording relief. It is but seldom the sweats can be relied on, even in a mild state of disease without blood-letting, and this we will next consider.

"The previous measures have been directed, in order to produce as equal circulation as may be obtained at this period; but still there may be much inequality until venesection is resorted to. We now take blood with the intention of reducing, and even removing the nosodynamic state. We therefore say, this remedy is debilitating under all circumstances; and if it is sometimes followed by an increase of energy, it is because it relieves the organic impediments, and emancipates their inability of function.

"But, how much blood shall be taken in a severe case of synochal fever! Shall we measure it? If we intend to arrest the chief force of the disease, render it safe and manageable, or even palliate it at an after period, when it has not progressed beyond the bleeding point, the only measure we want, is an equivalent to the cardiac and vascular force. The rule must be to bleed to the point of relief; and this implies a prostration of the nosodynamic force; and in order to effect this, it is necessary, oftentimes to prostrate the physiological energies. The more early and effectual the bleedings are practised, the sooner the patient escapes the danger of the disease, and with the loss of the least blood in the aggregate.

"In order for this remedy to be the most effectual, let the patient remain in his warm bed, in a recumbent position; take from a vein in the arm, in a full stream, until the pulse falters, and the patient faints so far as to be unconscious of anything, or to deliquium animi. He will no doubt revive, for we never knew it otherwise. As the circulations resume their courses, by a convulsive effort of the recuperative powers, the nosodynamia is annihilated for the present, at least, and the exhalations, absorptions, and secretions assume their natural courses. Sweat flows, and now is the favourable time to continue it by mild and easy measures; that is, continuing moderate external warmth, and aromatic infusions, &c. Also, camphorated powders, or emulsion.

"This change is more certainly produced, if the patient should vomit at the moment of resuscitation, and the small dose of antimony was given about an hour previous with a view in part, to this result.

"The tokens of the primary cause having been removed, are, an immediate flow of sweat from a previous dry surface; perhaps a change of countenance, and cessation of distress and pain, with a milder pulse. The intention now is, to prevent a return of the severity of the morbid condition; and for this purpose mild sweating should be continued for twenty-four hours, unless pain, heat, &c., should return. In this case sweating ceases. The morbid force has again accumulated. It now becomes necessary, to repeat the bleeding, but without intending to produce extreme faintness; but yet to the point of relief from pain, &c.

"The disease is liable to accumulate again and again, if it has obtained too much fixity at the beginning, and must be early met by efficient remedies. The bleedings should be repeated to the amount of relieving the urgency of the symptoms and rendering the case safe, but not now of suddenly arresting the disease. When bleedings are early practised, they are well borne afterwards to a great extent, if the necessity of the case should require them, and the bleeding point is not soon passed by.

"A case that has proceeded several days without bleeding, ought to be treated very much in the same manner in order to render it more safe; for no further time should be lost; provided, however, it has not proceeded beyond the bleeding point. This is often one of the most difficult questions to decide. When the question is rather doubtful in relation to copious bleeding, it should still be practised, but in a reserved manner. It is often so, that the case cannot do well without it, there being heat, pain, hard pulse, &c. still present. It may be proper to take some blood from the arm, and some by leeches, and observe whether it is well borne, and if so it may be repeated, and probably to the point of relief and safety.

"After fever has continued without bleeding, until there is evidently a failure of vital energy, as manifested by many phenomena, bleedings are liable to diminish the recuperative powers, so that the patient loses the chances of a favourable crisis; or the chances may be diminished by it. Yet, we have often known decided benefits resulting from late bleedings, and in cases supposed to be very doubtful.

"If the case should be attended with a determination to some of the organic viscera, with local inflammation, bleeding should early be extended, in quick succession, to the entire relief of pain. The repetitions should be practised as soon as pain returns after being mitigated, and without delay. Organic changes may take place within twenty-four hours after a re-accession of pain and inflammation, when it had appeared to be removed by previous means. So patients at a distance should be provided with accommodations of relief, during the absence of the medical adviser.

"Considerable observation is necessary to enable the physician to use bleeding to the greatest advantage, The patient should always be in a warm state when it is practised. In any disease whatever, either acute or chronic, the case will do better in the end as well as the time present, to take as much blood as is *necessary*, along with the other aids of remedies, to remove effectually the morbid habit, and without resorting to early tonics or stimulants. When this is accomplished, the healthy actions never fail to replenish the system with sound blood. It is the imperfect cures, or state of cachexy following disease imperfectly cured, that has given origin to the great complaints of Dr. Copland, and others, arising from the loss of blood. Neither are subjects, that lose much blood when necessary in disease, liable to suffer from plethora afterwards, if the previous disease be fully eradicated. The salutary actions soon establish their own healthy adjustments, when not interrupted.

"As soon as the patient has an opportunity after the first process of treatment, he should take a cathartic. According to circumstances, the first should be more or less drastic. If the principal location of pain should be in the head, it should be more drastic. Eight grains of calomel and rhubarb each may be sufficient. If the bowels are in a state of paresis, the case may require more, and the intestines need to be the more acted on. But this is not commonly the fact in the affections under consideration. In ordinary cases the neutral salts will be the best; and cathartics ought not to be so freely employed as to vellicate, or produce excitation in the intestinal mucous tissue. In synochal fever they require to be repeated, usually about every other day.

"If the head remains affected with pain and heat after the bleedings, whilst the lower extremities incline to be anæmic and cold, then the semicupium will become useful. Instead of this, blankets may be wrung out of warm water, and applied several thicknesses over the feet and up to the hips, and continued until the parts become well warmed. This diverts the blood from the plus distended parts to the exsanguious.

"If there remains some pain of a part, as the epigastrium, or abdomen, apply an emollient epithem. A handful of hop flowers infused in water, or spirit and water, thickened with wheat bran makes a convenient application for this purpose; it should be large and thick, as well as of an agreeable consistence. If much coldness exists in a part, sprinkle it well with black pepper; this is better than mustard, as it readily excites without blistering. If there is much heat of a part that is pained, the epithem should be of an emollient kind.

"After sufficient rounds of the above applications, if there should be found tokens of some topical affection in a considerable degree internally, leeches, or cups should be applied. Leeches to the hard and sensible parts, and cups to the soft parts. It appears to be a fact, that after there has been a local affection sometime established, the capillaries keep up for a time an independent action; or it may be slow of removal, and is greatly expedited by local bleeding. These applications should be made early, or as soon as general bleedings have been carried to a considerable extent.

"Nothing hitherto has been suggested in relation to the fashionable practice of blistering with cantharides; a practice we formerly went deep into, but now think it not often necessary in fevers of high action." * * *

"Epispastics add severe, and oftentimes unprofitable stimulations to the general system, as well as to the part. They ought to be avoided in every pyrectic state attended with much heat. Nevertheless, there are circumstances in which they may be useful, especially in protracted fevers. They should always be of ulterior application. If after the general and local remedies, already suggested, have been well employed, there should still be a local pain internally, of some considerable importance, an epispastic may be effectual for its removal. * *

"The practice of using opiate anodynes to mitigate pains in any form of fever, and local inflammations, is greatly to be deprecated; it is not only unjustifiable, but should be esteemed unpardonable; at least, after having heard a warning voice. Whilst these are used no benefits can be obtained by the radical treatment. In fevers of the synochoid character, the state of the diathesis may be such, that a single ordinary dose may put the case out of the reach of all remedies; and the greatest proportion by far of fevers of this climate, are of this diathesis; neither are they scarcely more justifiable in the reputed typhoid habits. Opium in all its modifications aggravates the morbid habit more than alcohol, or any other of the higher stimulants.

"The popular composition vulgarly called Dover's powder, is used extensively on the supposition, or pretence, of the hurtful effects of the opium being altered, or neutralized by its other ingredients. There is no modification of opium that alters its effects when given in a competent dose to affect the system. The black drop, and morphia have very nearly, if not entirely the same effects in stimulating the general system, in an adequate dose to ease pain, that the extract of opium has. These pretences are erroneous and delusive; for we have seen the latter as certainly fatal as the *ticute upas*, if not quite so speedily.

"These articles may occasionally be used in some conditions of distress, of the more strictly neuralgic kind, to much temporary benefit; also, a single dose at the onset of severe dysentery, cholera and ataxic fever; but after even these diseases have passed the stage of extreme irregularity, they add greatly to the danger; indeed, every condition of the established pyrectic habit is made worse by them, if not irremediable. It is probable, that for forty years past, opium, and its preparations have done seven times the injury they have rendered benefit on the great scale of the civilized world." * * *

"During the progress of synochal fever, considerable advantage is gained by small doses of some antimonial preparation, one given in the morning about 8 o'clock, and at about the same hour of the evening. The quantities ought to be just sufficient to excite a slight nausea, and if there should be any thing in the stomach that ought to be dislodged, it may excite emesis once or twice. If, however, the dose should not be so great as to excite even nausea, it will have a beneficial effect in promoting the secretions, and inducing composure. If we are not greatly deceived, this article has many times produced a tranquillizing effect in fever, so that the patient obtains more rest at night. It also favors an easy and salutary crisis, by directing the efforts of the system to some of the emunctories, as the skin, kidneys, or intestines. pp. 180—9

Phthisis as has already been said, is placed among diseases of the mucous tissues, and fifty pages are set apart for its consideration. The doctor re-asserts its curability, says nothing new of its causes, makes a blind thrust at the stethoscope, lays down some sensible prophylactic rules, and devotes twenty pages to the subject of its management, which may be thus briefly summed up. Let the patient live in a uniform temperature of about 75° Fah.; let him take, for one or two months, a warm bath, every night or every other night before going to bed; in the early stage let there be a pretty full bleeding which must be repeated at *short* intervals, perseveringly, whether the diathesis be synochoid or typhoid, till the morbid habit is removed. Give an emetic of antimony or of ipecac. every day or two; use demulcent drinks; after the pyrectic excitement is subdued, or when there are excavations in the lungs, administer tonics cautiously, apply counter-irritants to the chest, under the same circumstances; resort to agreeable exercise, and, above all things, eschew opium. This latter condition is insisted upon with so much emphasis, and constitutes so striking a peculiarity in our author's treatment, that we subjoin his opinions at length. Speaking of narcotics he says,

"We do not wish to stop and dwell on negative treatment: but as these are recommended by even some late writers, and so much used, they are introduced for the purpose of disapproval. From much observation of our own, we are assured no progress can be made in the removal of constitutional pyrectic affection, whilst opiates, or any other narcotic is used. Every case in which they have been used antecedently to the treatment, is sure to be rendered more uncertain, as respects a favourable result; unless we may except digitalis in a limited manner.

"The same remarks already made in relation to the use of narcotics in the acute morbid habit, (Sec. xlvi. 1, i.) will apply in the chronic, and in an especial manner as relates to phthisis. We insist that no progress can be made in the removal of the disease whilst narcotics are used in any form. We impute the failures of those who have attempted the treatment of phthisis on some just principles, in a great measure, to the use of these deleterious agents, so freely intermingled with almost every other remedy. In part, however, in not having just views of the character of the disease.

"We have, on several occasions, shown the illusions which have led to their use; and we may now merely notice, that they are the highest stimulants ever introduced into the materia medica. They retard the exhalations, absorptions and secretions; render the tissues dry; afford a delusive truce to painful sensations, by diminishing the sensibility of external relation, and ultimately aggravate every phenomena.

"They co-operate with the *remote* and *proximate* causes of phthisis, and serve to fix the primary changes in the inmost tissues more permanently, and render them more difficult of removal. Internal engorgements, or infarctions, are increased by their use, even in small doses; and every post mortem examination in subjects destroyed by narcotics, shows a violent state of congestion in the internal tissues of the head, thorax, and abdomen, similar to those produced in the internal tissues in the most malignant fevers.

"It is an unfortunate circumstance, that those who have advised their use in phthisis, have no better understood its pathological character, than the properties of these deleterious agents. There is something more than mere local irritation in the former, and the latter are something besides soothing sedatives. Many are more mistaken in these respects, than the deluded dram-drinker is in conceiving that another alcoholic draught will surely do him good. Their soothing influences are quite as brief, and their sequences more certainly pernicious.

"We freely declare, if compelled to use laudanum, Dover's powder, opiate cordiale, or cough drops, &c., we would never attempt a radical cure of phthisis pulmonalis in any of its varieties. In the last stage of a forlorn case, they are more justifiable, in small doses; and yet a previous well conducted case will hardly need them, as the calm composure of the downward way is commonly disturbed by their use. In their omission, there is no running the risk of exciting a repulsive delirium, or a forbidding lethargy." pp. 282—4.

Departing from the rules which he had laid down for himself, and impelled thereto, undoubtedly, by a full consciousness of the necessity of sustaining his assertions by some positive evidence, Dr. Gallup reports two cases, and we have a right to suppose the two strongest cases furnished by his experience, illustrative of the efficacy of his mode of treatment. The first is that of Dr. Gibson, who, after thirteen bleedings, so far recovered his health, as to practise his profession some eighteen years, at the end of which time he is admitted to have died of phthisis. The second is that of a lady supposed to have had the disease for twenty years, who in the course of two years was bled twenty-eight times, and who is still living. To any physician fully acquainted with the character of phthisis, it is wholly unnecessary to say, that the occurrence of two such cases, or of half a dozen such, during the lifetime of a practitioner, has in it nothing at all unusual. In 114 cases reported by Louis, the duration of the disease was, in one instance, ten years; in two, twelve years; in one, fourteen years, and in one, twenty years. Such cases have always been occasionally met with, but there is no evidence, whatever, that they are prolonged by bloodletting, or by any peculiar method of management. The fact itself, that the deposition and development of the tubercular matter, and the progress of the disease, are in a few rare instances suspended for a long period of time, or entirely arrested, is well established, but, unhappily, the causes which bring about this auspicious result are not yet ascertained.

Under the third order, claiming to embrace diseases of the serous tissues, we find typhoid fever. Dr. Gallup adds nothing to our knowledge of this very common and important malady. His treatment of it consists in the early use of the warm bath and of transient and diffusible stimuli internally; frequent emetics of ipecac.; occasional moderate doses of calomel and rhubarb; moderate blood-letting; effervescing and refrigerant drinks, and, in nearly all cases, an avoidance of opium.

The concluding portion of the work is taken up with the character and treatment of the malignant ataxic diseases, among which are enumerated typhus gravior, plague and yellow fever, cynanche maligna, epidemic pneumonia, cholera, malignant dysentery and puerperal fever. Dr. Gallup's treatment of this class of diseases may be thus generally stated. In the first stage of oppression, heat is to be applied to every accessible part of the body, external and internal, and light diffusible stimuli are also to be administered. As soon as the surface begins to grow warm, an antimonial emetic is to be given, and when by the use of these means any considerable degree of reaction begins to manifest itself, the lancet is to be resorted to, and used with freedom or reserve according to the peculiarities of each individual case. Opium, and all the high and permanent stimuli are to be scrupulously withheld.

We shall here close our notice of Dr. Gallup's book. We have bestowed upon it that full and sober attention which its claims and character appeared to us to demand. Of its peculiarities of style and grammar we have said nothing. These are matters of minor importance. We have aimed to state its doctrines fairly, and in the expression of our own opinions, while we have nothing extenuated, we have set down nought in malice. We have quoted freely from the therapeutical portions of the work, and so far as the author's practical maxims and measures are the result of observation and trial, and no farther, they are deserving of our attention. But we are obliged to add that they must be received with many allowances and with great caution, for reasons that have been already given. We regret that this is so. We regret that the value even of these better parts of the work before us is so much impaired by the coloured and refracting media through which the author has witnessed all morbid phenomena and all remedial processes. Dr. Gallup, with his well known indomitable energy of character, and his untiring perseverance, and with the wide and rich field of observation, in which he has passed a long and busy life, had he adopted a true method of investigation, and carried it out with that zeal and earnestness, which mark his devotion to a false and profitless philosophy, might have now given to the medical public a work of inestimable value. His most active and vigorous years were spent among a hardy, temperate, and rural population, in a region of remarkable general salubrity. His professional rides have been, not through the narrow, and dark, and noisome lanes of some huge metropolis, where poverty, and vice, and filth are huddled together with wretchedness and disease, but over the green hill-tops, and along the fresh clear rivers of Vermont, amid scenes that might have brightened the smile and gladdened the heart of Hygeia herself. But even here, where every breeze seems laden with health, epidemic disease in many of its most fearful and intractable shapes, has been but a too common visitant. During Dr. Gallup's residence here, dysentery, pleurisy, typhoid fever, scarlatina and spotted fever were frequently and extensively prevalent in their most malignant and destructive forms. A full and accurate history of all the phenomena of these successive epidemics—of their varying phases in different localities, and years, and seasons—of their symptomatology—of the condition of the organs in the fatal cases—of their rate of mortality—of the influence of age and sex, and of the effects of remedies, derived from close, attentive and truth-seeking observation, would have been welcomed by the profession of the present day with unmingled gratitude and delight. It would have been to medical science an invaluable contribution and a source of lasting honour to its author. But this work has not been done: it can now never be done: the materials for it are irretrievably lost. And the same thing is true of most of the epidemics, which have at one time and another, devastated nearly all parts of the world. They have been, for the most part, so imperfectly studied and described, that we can now form only very indefinite and fragmentary conceptions of their real character. Even the great work of Sydenham on epidemic diseases constitutes no exception to these remarks. We cannot now tell from his descriptions, whether his fevers are identical with the typhoid of New England and Paris, with the petechial typhus of Philadelphia and Great Britain, or with neither of these diseases. There is now but one true course for us. Leaving the past we must turn to the future, and under the guidance of a better method, and in the spirit of a sounder philosophy, begin anew the study of disease. The primordial and ultimate affinities and actions of the living organism are wholly beyond the reach of our investigation. We must cease to build upon this false and treacherous foundation, our theories of disease. We must cease to speculate about those things which we cannot know. At least we must cease to call this speculation, knowledge, to deduce from it our systems of pathology, and our indications of treatment. All this medical transcendentalism we must abandon; and we must give in our hearty allegiance to the simple, but stern requisitions of a rigorous and strictly inductive philosophy. In due season we shall reap our reward. One after another we shall find the established LAWS and RELATIONS of morbid action naturally and spontaneously evolving themselves, the necessary and inevitable fruits of our researches. Our therapeutic and hygienic indications will then *become more determinate and settled, and the conjectural* act will be gradually conformed into one of fixed and positive rules.

E. B.

ARTICLE XII.—*Outlines of the Principal Diseases of Females, chiefly for the use of Students.* By FLEETWOOD CHURCHILL, M. D., Dublin, 1838, 8vo. pp. 402.

A FULL and accurate digest of the present state of our knowledge in relation to the pathology and treatment of the diseases peculiar to the female sex, is a work much wanted by the profession. Scarcely any class of diseases have received more attention than these, or in the investigation of which a greater amount of industry and talent have been engaged, and yet, there are few perhaps, the nature and proper treatment of which are less understood, or in which gross mistakes are more frequently made by physicians of ordinary skill and experience.

This results from various causes:—On the one hand, from the extreme obscurity of many of these affections, especially in their earlier stages; causing the patient herself often to overlook them entirely, or more frequently, to deceive herself as to their real character and location, and thus inducing her, in connection with the promptings of a false delicacy, to mislead her medical adviser, if he be not fully on his guard, as to the cause of the suffering and other morbid phenomena of which she complains, by withholding from him, the very facts necessary to enable him to arrive at a correct diagnosis and an effectual mode of treatment. On the other hand, it arises, from much of the valuable information we possess in reference to the diseases of females, being scattered through various foreign periodicals, or, comprised in other works, but little acceptable to the great mass of our profession. To the student and young practitioner, especially, these affections are peculiarly perplexing.

To present, in a form adapted for their use, the pathological and therapeutical facts, in relation to the maladies incident to the female sex, deduced from the observations and experience of the most authoritative physicians, in different parts of the world, is the leading object of the work before us; which, although the author claims for it no higher character than that of simple outlines, compiled from the writings of others, with the addition of "whatever information he may have acquired from hospital or dispensary practice," presents, nevertheless, a tolerably accurate, though concise digest of the present state of medical knowledge, upon the subjects treated of; which, while it is well adapted for the use of the junior, as well as senior students, may, on many particulars, be consulted with profit by the generality of young practitioners.

The arrangement adopted by Dr. Churchill in the present outlines, is a somewhat unusual, though, in our opinion, a very judicious one.

The text contains a concise outline of the pathology and treatment of each disease, without any detail of controversies or conflicting opinions, which, whenever they appear of sufficient importance, are given in full, in the notes appended to each page.

> "So that the junior student, by confining his attention to the text, may acquire elementary information, which may be subsequently extended by consulting the notes and references.
>
> "In the notes, likewise, will be found extracts from various authors whenever the support of their opinions seemed desirable." "Any remarkable and authentic cases which bear upon the subject, have been also inserted, for the double purpose of elucidation and description."

The work is divided into two parts, the first treating of diseases of the external genitals; the second, of those of the internal genitals, comprising four sections devoted respectively to the affections of the vagina, uterus, fallopian tubes and ovaries.

The histories of the several diseases treated of, are, throughout, sufficiently clear and accurate; of course, the more minute details, however invaluable for the formation of a correct diagnosis, we are not to look for in a work of mere outlines, like the one before us. The pathological views detailed by the author, more especially in the second part of the work, are, in general, those entertained by the most distinguished physicians; occasionally, however, we are persuaded that a more minute investigation of the facts upon record, would have induced him to reject as altogether unsatisfactory, the views he has presented, while, in a few instances, the vagueness of expression which characterises this portion of the outlines, detract not a little from their merit and usefulness. The remedial measures that have been found by experience to be best adapted for the removal or amelioration of the maladies under consideration, are, in most instances, clearly described—although, in more than one instance we notice important omissions under the head of treatment, and too often, a use of general terms calculated to communicate no exact, and of course, but little useful information to the student.

The first part of the outlines, as we have already remarked, treats of the diseases of the external genitals, and is the least satisfactory of the two, into which the work is divided. The subjects of the first four chapters, which are comprised in less than six pages, are phlegmonous inflammation of the external labia, encysted tumours of the labia, oozing tumour of the labium, and warty tumours of the vulva. The fifth chapter, on itching of the vulva, though more extended than the preceding, is altogether unsatisfactory, and in some particulars, inaccurate. This affection, we have found to be one of extremely frequent occurrence, and it is in most cases, highly distressing to the patient. Of the condition of the vulva and vagina in cases of pruritis, so accurately described by Dewees, no notice whatever is taken. The author appears also to have followed entirely those writers who have confounded this affection with furor uterinus or nymphomania—a gross mistake, the source of which it is difficult to understand, as the two affections may be readily distinguished by an accurate observer; we have, ourselves, never seen them even occur simultaneously. Dr. Churchill's account of the causes of pruritis vaginæ, is extremely vague and conjectural; what is meant by "the irregular disturbance of the genital system," which occurs about the cessation of the menses, and is included by the author among the causes of pruritis, we have puzzled ourselves in vain, to determine.

From the use of the several remedies recommended in this chapter, we have seen very little or no benefit to result, with the exception, perhaps, of the local application of cold water, frequently repeated. The remedies that have with us most often succeeded in allaying the intolerable itching, are a strong solution of borax as recommended by Dewees—a solution of sulphate of copper, and a wash composed of a few drops of creasote diffused in water. In very many cases, however, no one of the remedies employed have succeeded in removing the disease, often not producing even the slightest alleviation.

The ensuing chapter, on inflammation of the mucous membrane of the vulva, is a very good one. The disease is often met with, especially in infants, in regard to whom proper care has not been taken to keep the parts perfectly clean and dry; it is likewise of not unfrequent occurrence in older children, and when overlooked or neglected by the parents in its earlier stages, is apt to assume a chronic and very troublesome form. In these cases we have not found the disease so invariably confined to the mucous membrane of the vulva, as described by Dr. Churchill, but extending into the vagina, and occasionally to the urethra, and then causing the utmost distress to the patient whenever the urine is voided.

The two remaining chapters treat of enlargement of the clitoris, and of tumors at the orifice of the urethra; they are sufficiently accurate.

Of the second part, the initial chapter treats of diseases of the vagina.

Vaginal leucorrhœa, which is first considered, the author refers, in common with many, perhaps the majority of the most authoritative writers, to inflammation, either acute or chronic, of the mucous membrane of the vagina. In very many instances, there can be little doubt that the disease is attributable to inflammation of that membrane; there, nevertheless, frequently occur, cases of leucorrhœa, in which the discharge is very copious and difficult to arrest, and depending apparently upon an alteration of tissue in the vaginal mucous membrane, in consequence of which it secretes, instead of the ordinary mucus, a fluid morbid in its character as well as in its amount, and unaccompanied by the slightest trace of inflammation. This alteration of tissue, may, it is true, have been induced by inflammation, but cannot, with propriety, be considered as being identical with the latter in even its most chronic form. The fact is, that notwithstanding all that has been written on the subject of leucorrhœa, we are but little acquainted with its true pathology, and, in consequence, its treatment is in a great measure empirical and uncertain. Its extreme prevalence, and the very great inconvenience it almost always occasions to those who are affected with it, demands that a greater degree of attention should be paid, to acquire accurate views of its nature, leading to an efficient plan for its prevention and cure. The remedies which the author briefly enumerates, we have found in numerous cases to produce no beneficial results, nor do we know of any that will be found more generally successful.

The chapter on inflammation of the glandular structure of the mucous membrane covering the cervix uteri, is derived almost entirely from Clarke's work on Diseases of Females.

As a very fair specimen of the author's text, we present the whole of the chapter on granular inflammation of the mucous membrane of the cervix uteri—an important disease, which was, until recently, entirely overlooked, and is still frequently confounded, by inexperienced practitioners, with affections of a very different character.

> "As this is a disease which can only be discovered by ocular examination, we could not expect to find any description of it in the older writers; but since the adoption of the speculum as a means of investigation, this and other morbid phenomena are much better known. The best, and indeed almost the only account of it will be found in the valuable work of Boivin and Dugès.
>
> "These granulations, which may be seen on the labia of the os uteri, and on the external surface of the cervix, are the result of acute or chronic inflammation, and the two forms differ considerably.
>
> "*In the first species*, or that resulting from *acute* inflammation, the granulations are occasionally few in number, about the size of peas, sub-pediculated, firm and whitish; more frequently, they are of the size of millet seed, whitish, but soft, as if vesicular, in great numbers, and without a pedicle. The contact of the speculum, or of the finger, or the act of defœcation merely, gives rise to a discharge of blood from the membrane of the cervix uteri.
>
> "In the second species, the consequence of chronic inflammation, the granulations are either small, hard and whitish—reddish and soft—or miliary, without redness of the surface of the cervix uteri from which they grow.
>
> "The usual *symptoms* are pain and vaginal discharge. In the acute form, there is considerable redness, and vascularity of the parts, which bleed when touched. In the chronic form, these two characteristics are absent. There is some tenderness about the os uteri, with pruritis of the external parts, sometimes nearly causing nymphomania.
>
> "The *causes* are extremely obscure. In some cases, it appears to arise from derangement of the catamenia, or from cold caught during menstruation or after abortion; in others, it appears referrible to cutaneous or syphilitic disease. Not unfrequently, it co-exists with induration or other organic change of the cervix.
>
> "The *diagnosis*, with the aid of the speculum, is tolerably easy; but without it, it will require great care and a sensitive touch, as the granulations, when large, are generally soft, and when hard, are almost always very small.
>
> "The most successful *treatment* consists in local bloodletting by cupping or leeches in the first instance, and in acute cases; followed by warm bath, emollient vaginal injections, and counter-irritation.
>
> "In the chronic form, bleeding will rarely be necessary. Astringent or stimulant injections will be found most efficient, especially a solution of the nitrate of silver. Tonics (particularly the metallic) or mineral waters will generally be found very useful.
>
> "Counter-irritation, by blisters on the sacrum or cauterization, will be found

to exercise a decided influence over the progress of the disease. Should there be any suspicion of a syphilitic origin, specific remedies must be employed. Every source of irritation should be carefully avoided."

The chapter on thickening of the cellular membrane surrounding the urethra, with a varicose state of the vessels, a disease frequently met with in females who have borne several children, is condensed chiefly from the work of Sir. C. M. Clarke.

The succeeding chapter on prolapse of the vagina is a very excellent one, presenting a very full and satisfactory outline of the causes, symptoms and treatment of an affection by no means of uncommon occurrence, and which from its being occasionally mistaken for prolapsus of the uterus demands to be well understood, especially by the young physician that he may be on his guard not to be led into an error of this kind. For a more extended study of this affection the references in the notes will be found useful.

Two short but interesting chapters on abscess between the vagina and rectum, and on tumours in the pelvis external to the vaginal canal, close this section.

Before proceeding to the consideration of the special diseases of the uterus, which form the subject of the next section, the author presents a few very general observations on their pathology and diagnosis. These will be found of great use to the student, especially the remarks on the modes of investigating the existence, extent, and character of these diseases by a manual or tactile examination, and by a visual examination by the speculum. The following extract is offered as a specimen of the manner, in which this subject is treated. We are prompted also to make the extract from this the only correct plan of investigating the diseases of the uterus being too often omitted entirely, or at least neglected in their first stages.

"In all investigations into the symptoms of uterine disease, we should, first of all, localise the complaint as far as possible, and then discover its effects upon the different functions. The discharges should be carefully examined, and their relation to the menstrual secretion ascertained, i. e. whether they occur about the same time or during an interval, whether they increase or diminish before or after the appearance of the catamenia, whether their colour varies from what is usual? or, if they possess an offensive smell? if the discharge be sanguineous, we should discover whether it commenced at a menstrual period? whether it is accompanied by pain or bearing down? These points should all be cleared up as far as possible, and even then there will often remain much that is doubtful. But as if to compensate for the insufficiency of the ordinary symptoms, we are possessed of other means of acquiring a knowledge of these complaints, which, combined with what I have already noticed, will, in most cases, leave us without excuse for any mistakes we may make. I allude to the power of making a manual or tactile examination. The extent and accuracy of the information derived from this source is very remarkable. By the '*toucher*' we are enabled, with considerable certainty, to decide the question of functional or organic disease. We can ascertain the degree of heat and moisture of the vaginal canal, the character of any discharge, the state of the cervix and part of the body: we can discover the presence of ulceration, of laceration, of displacements, with the exact amount of the mischief: we can detect the existence of scirrhus, cancer, or of morbid growth; by combining internal with abdominal examination we can throw light upon the distinction between uterine enlargements and pregnancy or ovarian disease. These and many other practical observations are the result of this mode of investigation. The principal points to which our attention should be directed when making the examination are; the state of the vaginal canal as to calibre, heat, moisture and sensibility, the condition of the pelvic cavity, whether unusually empty, or filled, and by what? the elevation of the os uteri, its patency, sensibility, and integrity, the density of the cervix, its sensibility and freedom from morbid growths or ulceration; the position and volume of the womb, its mobility and sensibility. The nature of the discharge will be observed on the withdrawal of the finger. If there be a breach of surface, its extent should be ascertained and the coexistence of morbid deposition investigated. If hemorrhage, the state of the fundus and cervix is of importance, and also the existence of a fungous or polypous production. With regard to the two latter, it will be proper to discover, if possible, their attachment, and to inquire as to the possibility of their removal by ligature or excision."

After some remarks on abdominal palpation and examination per rectum, the author adds:

"We have seen, that by the touch, in connexion with the local symptoms, we can obtain information on all points, except that of colour, and the accuracy of the knowledge so acquired, is scarcely, if at all, inferior to that obtained by sight. It is very true, that a delicate sense of touch, and much experience is necessary, before this degree of perfection will be obtained, but it is equally certain, that perseverance in availing ourselves of every opportunity (both on the living and dead body) will ultimately be crowned with success. The only deficiency in our means of diagnosis (viz., the not being able to examine the parts by sight), has been supplied of late years by the introduction of the *speculum*, and to this we undoubtedly owe the extension of our knowledge of uterine and vaginal disease. Some new ones have been observed, and others already familiar have been accurately described."

The speculum "enables us to detect variations from the natural colour of the mucous membrane—slight erosions which might be passed over by the finger, elevations on the cervix uteri, or on the walls of the vagina, too little raised to impress the sense of touch. The length and thickness of the cervix uteri, can be accurately ascertained, and we are able to discern the colour of the surface of an ulcer. It will also confirm many other circumstances which have been recognised by the '*toucher*.' In a practical point of view it is very valuable, as enabling us to apply remedies (such as leeches, caustics, &c.) to the very part affected, without injury to the neighbouring organs. On the other hand, we must be careful that we do not mistake for morbid changes, those appearances which are caused by the instrument itself. For instance, too much pressure may alter the elevation and position of the uterus, and may produce a swelling and puffiness of the cervix. The speculum should not be used at all when the vagina is very tender."

The notes to this preliminary chapter contain much useful matter.

In speaking of the catamenia the author seems to consider the opinion of Mojon de Genes, that there exists no *peculiar* secreting apparatus for the production of the menstrual fluid, as a hypothesis altogether untenable. It is nevertheless the opinion of the best modern physiologists, founded upon considerations which can scarcely be overturned, that *all secretions* are separated from the blood without the intervention of any *peculiar* secreting apparatus in the sense in which our author employs the term—that they all take place by permeation through the coats of the blood vessels.

In the section which is devoted to the disorders of the menstrual function a very excellent outline is given of all the more important facts connected with the subject. To treat, however, as the author has done, of each derangement of this function as a disease, is in our opinion not calculated to lead to correct practical views. To consider the disturbances to which this function is liable in any other light than as phenomena dependent on certain morbid conditions with which the uterus itself is either directly or indirectly affected, and to the removal of which our remedies are chiefly to be directed is not only a very gross error in pathology but one very liable to induce very serious mistakes in practice. The mere non-occurrence, suspension, irregular return or excess of the menstrual flux being in itself of comparatively little importance in comparison with the cause upon which it may happen to depend, nearly all our efforts directed to restore the discharge when absent, to restrain it when too profuse, or to cause it to recur at the proper periods, without a direct reference to the morbid condition of the uterus or the other organs giving rise to the disordered menstruation, will either fail in the attainment of the desired result or endanger the production of more serious injury than the mere disturbance of function they are resorted to to remedy.

Chlorosis the author treats of as invariably arising from disturbance of the menstrual flux, and lays down the first and most important indication in its treatment to be the removal or mitigation of such disturbance. Now it must be evident from a minute and cautious investigation of this disease, that in the majority of instances the disturbance of the uterine function is secondary to and dependent on the spinal disease, defective nutrition, and anemia which give rise to the various groups of symptoms to which the general denomination of chlorosis has been given, and which occur, under particular circumstances favourable to a deterioration of the general health and vigour of the organism, as well in the male as in the female. Hence the extreme folly and mischievous tendency of directing our attention primarily and mainly to restore the regular performance of the menstrual function, in the female, by remedies which are supposed to act directly upon the uterus.

The Outlines, of the author, on the pathology and treatment of Dysmenorrhœa, occupy ten pages, presenting a very ample summary of all that is known in relation to this distressing affection. His chapter on menorrhagia is also a very good one; we find very little of a controvertible character in his account of either its pathology or therapeutics. We are not prepared, however, to admit that the real menstrual discharge is very frequently so profuse as to render necessary the adoption of any very energetic remedies to moderate or restrain it. We believe that in every instance menorrhagia, as it is termed, or a morbid discharge of blood from the uterus, is a true hemorrhage, and invariably to be treated as such.

Some very judicious remarks are offered by Dr. Churchill in his chapter on cessation of menstruation, which physicians will do well carefully to attend to; for there still exists a very erroneous notion as to the extremely critical state of the health of females at this period, and the necessity of subjecting them to a proper preventive treatment.

> "The period of this great change (cessation of menstruation) is," Dr. C. remarks, "about the age of 45 or 50; it is referred to by females as the 'time of life,' and is dreaded by them from a belief in its excessive mortality. This opinion probably originated with medical practitioners; it is at all events, advanced by the older writers.
>
> "The mistake (for such it is) has probably arisen from comparing the mortality of females at this period with that at any earlier period; comparing, in fact, old and nearly worn out women with the young and strong. We should expect the deaths among the former to preponderate* but this is no reason fo

---

* "Even this would appear somewhat doubtful, for M. Constant Saucerotte has attempted to prove by statistics, on a grand scale, that the mortality amongst women is greater between the ages of 30 and 40 than between 40 and 60. Muret in his statis

attributing any peculiarly fatal influence to the subsidence of the uterine function. We ought, in truth, to compare the mortality in the opposite sexes at the same age, and we shall then arrive at a different conclusion.

"M. Benoiston de Chateauneuf has recently shown, by extracts from burial registries, that the mortality between the ages of 30 and 70 is not more considerable amongst women than men. But if the comparative mortality be less than was supposed, there can be no question as to the importance of this period; for in many cases, we find uterine and ovarian disorders dating from thence, and we know that it is about this time generally that the more malignant diseases commence. How far they may be owing to neglect at this period, it is very difficult to say; we must suppose, however, that the anatomical state in which the uterine system is left on the arrest of its function, must exert a certain amount of influence in their production."

Healthy women, the author very properly remarks, at this period, often get much fatter, the abdomen and breasts enlarge, and they not unfrequently persuade themselves that they are pregnant.

"Occasionally there seems to be a disposition to irregular distribution of blood, local congestions, &c.; but more frequently the health is improved. This is especially the case with those patients who have suffered much from dysmenorrhea or irritable uterus. Delicate females, and especially those subject to menstrual derangements previously, are exposed to local diseases of the sexual system, and especially to that series of changes which issues in confirmed disorganization. This is the more to be apprehended if she have already been the subject of uterine disease, or if at the time any such disease be latent, and on our part it will require attentive examination and considerable practical skill."

In the chapter on the constitutional effects of the disorders of menstruation the author has described a series of symptoms some of which are no doubt immediately dependent upon derangement of this function, while much the greater number, although they may very generally accompany such derangement, we have room to believe, are improperly considered as its effects; they depend evidently upon the same morbid condition of certain organs to which the disorder of the uterine function is itself to be attributed. This is especially true, as we have already remarked, of the morbid phenomena constituting the disease denominated chlorosis.

In his account of the irritable uterus Dr. C. has followed Gooch almost exclusively. Many important additional facts connected with this disease, and the correction of some of the errors into which Gooch has been led, the author might have derived from the works of Addison and Dewees and the very interesting essay of M. Genet. As a means to assist our diagnosis, the pulsating, throbbing, or fluttering sensation within the vagina or pelvic cavity, which according to Dewees, differing in degree, is an almost invariable attendant upon irritable uterus and marks it in a special manner, forms an all important item in the list of its symptoms.

The chapter on uterine leucorrhœa is full, clear and highly interesting; and the same remark may be made in relation to the two succeeding chapters on physometra or uterine tympanitis and on hydrometra or dropsy of the womb, affections which though of not very unfrequent occurrence have had very little attention paid to their pathology. By many we have found even the possibility of their occurrence to be unsuspected. The chapter on moles, &c., of the uterus presents a very instructive digest of

---

ties of the *Pays du Vaud*, did not find between 40 and 50, a more critical age for women than between 10 and 20. M. Lachaise in his medical topography of Paris, has given similar evidence. *Lisfranc, Mal. de l'Uterus*, p. 202.

the principal facts in relation to their pathology, with copious references o the several sources from which more detailed information may be derived.

The student will find in the succeeding chapters of this section a very able outline of the present state of our knowledge, in relation to the remaining affections of the uterus. The best authorities have almost in every instance been carefully consulted, and from their writings many interesting extracts have been introduced into the notes appended to each page: much valuable information may be derived, even by the practitioner, from a perusal of this portion especially, of the Outlines.

In the very excellent chapter on prolapsus uteri, the author speaking of the use of the pessary, and describing the various forms of the instrument that have been recommended by the more distinguished writers on this subject, remarks:

> "Various objections have, at different times, been made against the employment of pessaries, and latterly they have been repeated, and urged with all the moral weight derived from long experience and high standing in the profession.
>
> "As far as I have seen, they may be arranged under the following heads:
>
> "1. They are indelicate.—(*Leake.*)
>
> "2. If too small, they will not rest in the passage, but be forced out, and consequently do no good.—(*Leake.*)
>
> "3. They irritate the vagina, and give rise to leucorrhœa.—(*Hamilton,*) especially if too large, (*Leake, Murat.*)
>
> "4. They cause irritation, ulceration, and fungous growths.—(*Murat. Annan. Hamilton. Dieffenbach.*)
>
> "5. They give rise to putrid discharges from the vagina.—(*Murat. Dieffenbach.*)
>
> "6. They occasion dilatation of the vagina.—(*Dieffenbach.*)
>
> "7. They cause contraction of the same organ.—(*Dieffenbach.*)
>
> "8. Patients have suffered under irritation of the bladder or constipation, whilst using them.—(*Dieffenbach.*)
>
> "9. The pessary may become so incrusted with earthy matter, as to require breaking before it could be extracted.—(*Murat. Dieffenbach. Hamilton.*)
>
> "10. The pessary has been known to make its way through the walls of the vagina, and into the rectum.—(*Dieffenbach. Annan. Hamilton.*)
>
> "With regard to the first objection, if true, the operation only shares equally with all midwifery operations; nay, it is not a whit more indelicate than making a vaginal examination. If the second or third objections be valid it must be owing to an error in calculation, and if the operator be watchful, he will speedily obviate it. The fourth, fifth, eighth, ninth and tenth are only applicable to cases of gross neglect on the part of the patient or medical attendant, and cannot for a moment be admitted as any argument against the proper use of the pessary. As to the sixth and seventh, they cannot both apply to one case. Undoubtedly, a pessary will keep that portion of the canal in which it is situated, in a state of dilatation, but with equal certainty, the vaginal orifice will be relieved from the distension caused by the prolapsed uterus, and if every time the pessary be changed, one of a size smaller be introduced, it will be found quite adequate, and in many cases, a permanent cure may, at length, be obtained.
>
> "With due respect, therefore, to the eminent authorities just quoted, their arguments do not seem conclusive against the proper use of pessaries. On the other hand, there is ample evidence from well authenticated facts, to show that the judicious employment of these instruments, so far from being injurious, is in many cases beneficial, and even preferable to any other plan of treatment."

Dr. Churchill very properly notices the operation proposed by Mr. Girardin, as a means of affording a more decided and permanent mode of relief in cases of prolapsus uteri, than that obtained from the best constructed pessary. It is an operation similar in principle to the one adopted for the cure of prolapsus ani by Hey and Dupuytren, and has been performed with some modifications in Britain, by Doctors Marshall Hall, Heming and Ireland; in Germany by Professor Dieffenbach, Doctor Fricke, &c., and in France by Velpeau and Berard. The author's outline of the facts in relation to this operation are sufficiently full, and his reference to authorities very complete.

An interesting chapter is given on the Diseases of the Fallopian tubes; while the concluding section treats of the diseases of the ovaries—of the leading facts in relation to the pathology and treatment of which, a very complete digest is presented with copious notes and references. From the very great obscurity of the majority of these affections, particularly in their earlier stages—the slight amount of attention that has been paid to their investigation—the difficulty if not impossibility of removing or arresting them when they have eventuated in a change in the texture of the organs, and our ignorance of the means proper for their prevention, the present section of the Outlines is far less satifactory than either of the preceding. This, however, is the fault of the subject—the author has brought together the few facts known in relation to the ovarian diseases, and future, more extended observations must be the means resorted to, in order to supply, if possible, whatever is deficient in relation to these affections, which are of more common occurrence than is generally suspected.

The foregoing remarks will enable our readers to form a tolerably just estimate of the plan and value of the work before us. We have not considered it either necessary or proper to enter into an extended review of it, or to note each particular in which our own experience would lead us to differ from the views advanced by the author, and the few instances in which he has, in our opinion, failed in exhibiting an accurate digest of all the facts known in relation to the subjects of which he treats—while the extremely condensed form in which the valuable matter comprised in these Outlines is presented, precludes any attempt at analysis.

As an introduction to the study of the principal diseases of females the work will be found, we are persuaded, a very excellent and useful manual. Even by the practitioner who is precluded by the want of the means or the time from a frequent reference to the numerous standard works on the affections peculiar to the female sex, it may be consulted with advantage.

There yet remains, Dr. Churchill remarks, two classes of the diseases of females not included in the present volume, namely, those occurring during gestation, and in childbed. These will form the subjects of another volume, should the plan of the present one be approved. As this can hardly fail to be the case, we may confidently expect the appearance of this proposed extension of the Outlines. The diseases of pregnancy and childbed are, if possible, even more important than those of the unimpregnated state, and in relation to which a vast amount of valuable information is placed beyond the reach of the generality of students. D. F. C.

ARTICLE XIII. *De l'Albuminurie ou Hydropsie causée par maladie des Reins; modifications de l'urine dans cet état morbide, à l'èpogue critique des maladie aigues et durant le cours de quelques affections belieuses.* Par le Dr. MARTIN SOLON, Médecin de l'Hôpital Beaujon, Agrégé à la Faculté de Paris, Professeur particulier de Matière Médicale et de Thérapeutique, Membre de l'Académie Royale de Médicine, Chevalier de la Legion d'Honneur. Avec planches coloriées. Paris: 1838.

Of Albuminuria or Dropsy caused by Disease of the Kidneys; of the altered character of the urine in this disease, and also at the crisis of acute diseases and during the course of certain bilious affections. By Dr. MARTIN SOLON, Physician of the Hospital Beaujon, &c. Paris, 1838.

THE principal object of this work is to advance our knowledge of the affection commonly known as "Bright's Disease of the Kidneys," but which our author calls "albuminurie," as being expressive of its principle and pathognomic character, viz: the presence of a large quantity of albumen in the urine. That the urine of certain dropsical patients contains albumen is a fact which had been known long before the appearance of Dr. Bright's essays. In particular, Cruickshank and Blackall divided dropsies into two great classes, according as they were or were not accompanied by albuminous urine. But it was reserved for Dr. Bright, of London, to establish the fact, that the kidney frequently becomes the seat of a peculiar morbid alteration, from whence results the diseased secretion of the organ, together with a certain train of morbid phenomena, of which a particular form of dropsical effusion is the principal. Since the appearance of Dr. Bright's work in 1827, various essays upon the same subject, and confirmatory of his positions, have been published by some of the most eminent physicians both of England and France, particularly Christison, Gregory, and Rayer. The disease in question is said to be of frequent occurrence in England, and we have no doubt that it will be found to be common in this country also. Nearly half the cases of dropsy admitted into the Pennsylvania Hospital, in this city, during the months of July, August, September, and October, 1838, were characterized by albuminous urine in a high degree. Our author's history of "albuminurie" is founded upon the reports of 28 cases of the disease, all of which are given in detail. The most important questions appertaining to this affection are fully and clearly discussed, and great caution and diffidence displayed in arriving at positive conclusions. Appended to the essay is an inquiry into the condition of the urine under various circumstances where the kidney is not the seat of Bright's disease, and especially at the crisis of acute diseases. Having premised this much, we shall proceed to a succinct analysis of the contents of the work.

The urine of persons in health contains no albumen. In upwards of five or six hundred trials, made by our author, of the urine of persons either recently restored to health, or habitually healthy, no traces of it were discovered, except for a short time in two of them, where it was most probably accidental. Heat and nitric acid do not render healthy urine turbid, but on the contrary clarify it when it is mixed with mucus. Both these agents, however, cause a coagulum in urine, which contains albumen even in very minute proportions, and are consequently the tests especially relied upon for the purpose of determining its presence. Of the two, the action o heat is most to be depended on, as it occasions no change in the essential elements of healthy urine. In making use of it, however, we must be particularly careful that the urine is acid; if it is not so, it may easily be rendered so by a few drops of acetic acid.

Besides the twenty-eight cases of Bright's disease, our author reports four cases of inflammation or hæmorrhage of the kidneys. Of the twenty-eight above mentioned, twelve died. All these cases are given in detail, commencing with those which recovered. These are divided into several series, the first of which includes six cases of acute hyperemia of the kidneys, which is regarded by Dr. S. as the first stage of the disease. The second includes those more advanced, whilst the third contains the history of a single case in which the disease was supposed to have arrived at its third stage:—Then follow the fatal cases, accompanied in nearly every instance by an account of the post-mortem appearances. We shall not follow our author through these details, but proceed to the general results in connection with the most important questions which he discusses.

"We observe," says our author, "in reading the cases just detailed, that there exists, in the affection called *granular disease of Bright*, constant and promiment symptoms, together with anatomical lesions which are constant as regards their seat, but of various appearance. The symptoms are, albuminous urine, and dropsy in different degrees; the lesions, are a morbid alteration of the kidney, which from simple hyperemia—gradually passes to a peculiar state of yellow degeneration, &c." p. 179.

These lesions and symptoms, as is afterwards shown, constitute one and the same disease, which he defines "a special morbid condition of the kidneys, occasioning the presence of albumen in the urine, and the development of consecutive dropsies."

Dr. M. objects to the term *granular* as used to designate it, since granulations of the kidney are rarely met with in those who die. He likewise objects to the term *albuminous nephritis* adopted by Rayer, because it cuts short a question which is not completely settled, viz., the inflammatory nature of the disease. Besides, as there are very striking points of difference between it and nephritis properly so called, he thinks that the adoption of the latter term may prevent some from recognising the disease—"Thus," he says, "we expressed to a distinguished practitioner our fear that a certain patient was affected with Bright's disease. This, the practitioner in question, acquainted with the term employed by Rayer, at once denied, on the ground that the patient presented no symptoms of nephritis." p. 181.

The adoption of this term too, he thinks, might give rise to the employment of antiphlogistic remedies, which are suited only, and that when moderately employed, to the commencement of the disease, and not at all to its more advanced stages. It may be objected to the term *albuminurie* employed by our author, that the symptom to which it refers occurs in other diseases, to which he replies, that where albuminous urine is found in nephritis or other acute affections, it is very far from presenting the same characters which it does in Bright's disease. In the latter, albumen is almost the only principle contained in the urine, whereas in the former it exists only in small quantity and without excluding the other elements of the fluid. In the latter case too, albuminous urine is only of transient occurrence, and from this circumstance is readily distinguishable from the *permanent albuminurie*, which belongs to Bright's disease. Whatever may be said, however, in favor of this term, we cannot see any reasonable objection to continuing for the present, the use of the term *Bright's disease*, or *Bright's disease of the Kidneys*, which has been very generally employed, not only in England and in this country, but we believe, also in France. If at any future day, when the nature of the disease shall be better understood, its affinity or identity with other pathological lesions shall be shown, the adoption of a term to indicate such affinity or identity would be highly proper, in order to preserve a uniform nomenclature.

Post-mortem Appearances.—Dr. S. found the kidney diseased in all but two cases, where probably the presence of albumen in the urine was owing to a derangement of nervous influence in one, and to the presence of cysts in the kidney in the other. At any rate, they cannot invalidate the testimony of the mass of cases which prove that a certain alteration of the kidney causes a change in the character of its secretion, and deranges the economy.

The morbid changes observed are classed under five different heads, which, however, are reducible to three principle ones, viz., hyperemia, yellow degeneration, other degenerations and accidental productions. In the first, the kidneys may be merely found engorged with blood, but more commonly are red, hypertrophied, heavier and larger than natural, the cortical substance being the especial seat of the hypertrophy. In the second variety, or that of yellow degeneration, the kidney is almost always enlarged; the hypertrophy, when it exists, depending upon a development of the cortical substance. Its external surface is of a very peculiar colour which may be compared to that of the pancreas. Internally, it presents the same colour, especially in the cortical substance, but as the disease advances, the tubular portion is also involved and in some instances cannot be distinguished from the other except by its rounded summit from which the urine may be made to flow. In the third variety, at the same time that the kidney is the seat of the yellow degeneration, it assumes also a granulated aspect, a form, however, which our author has rarely met with, though frequently noticed by Dr. Bright. The kidney also may become atrophied, whilst various accidental productions, as cysts, or tubercles, may be developed in its substance.

Causes.—Although adults are chiefly subject to the disease, children are not altogether exempt—contrary to the assertion of most authors, that men are more subject to it than women, the latter were found more numerous than the former amongst the cases recorded by our author. He thinks it possible that a moist and cold climate may favour its production, and accounts in this way for the apparently greater prevalence of the disease in England than in France. In the latter country too, it is more common in the north than the south. In further support of this view he urges the fact that many of his cases had been exposed to the influence of cold and moisture. I know of no data by which to determine the comparative frequency of the disease in this country, or even any one part of it. In the Pennsylvania Hospital, the writer examined a few months since, in conjunction with Dr. Meigs the resident, the urine of all the patients in the men's medical wards, and of the whole number which was about twenty, found but three in whom it was coagulated under the influence of heat and nitric acid—two o these were undoubted cases of Bright's disease, which was probably presen in the incipient stage in the third, in whom there was organic affection o the heart. In a similar trial made upon a much larger number of patients i the wards of Guy's Hospital by Dr. Bright, the number of patients with decidedly albuminous urine was found to be about one in six, a rather greater proportion than that found in the Pennsylvania Hospital. No positive inference can of course be drawn from the above comparison as regards the comparative frequency of the disease in this country and in England, but it will serve to show that it is far from being a rare disease amongst us, and consequently deserving of more of our attention than it has hitherto received.

Of the influence of diet our author is able to say but little, but he thinks that the habitual use of alcoholic drinks might oftentimes be regarded as the principal cause of the disease. Disease of the heart may also be looked upon as a predisposing cause, but not so phthisis, secondary syphilis, or mercury. In particular, our author is satisfied that gravel or urinary calculi have no influence in the production of this affection, whilst, on the contrary, they very strongly tend to the development of nephritis.

Symptoms.—The principal symptoms, as already mentioned, are albuminous urine and serous or cellular dropsy. Amongst the precursory symptoms even, there is none more important than the presence of albumen in the urine, which may for a time exist alone, without any other apparent disorder, and should induce us to fear the establishment of Bright's disease. In about one-third of the cases collected by our author, there was pain in the lumbar region, in some of whom fresh pain was excited by percussion on that part, but in all the others this mode of investigation occasioned no painful sensation. In acute *nephritis*, on the contrary, percussion is almost always insupportable.

The emission of urine was painful in only one or two cases, and that for a short time. Besides the presence of albumen, the urine presents several other modifications; it is generally less dense than healthy urine; its odour too is less marked, both when recent and after it has stood some time in open vessels; its colour varies, but most commonly is very pale and slightly turbid. When this last character is found united with infiltration of the limbs, it is of itself almost sufficient, says our author, to enable us to say that the urine is albuminous. In every case of Bright's disease, which has come under my notice, the urine has presented the peculiar characteristic aspect above alluded to. Urea exists in less proportion than natural, and, when the yellow degeneration is complete, disappears almost entirely, whilst the proportion of albumen becomes as great as possible. In the majority of cases the heart was natural, and not disturbed in its function; except, perhaps, in one case where there was vomiting. No decided sympathetic disturbance of the digestive system was observed, and diarrhœa was very rare. Habitual headach, followed ultimately by a comatose condition, have been considered as common symptoms in Bright's disease, but our author did not observe them at all in the sixteen cases which did not terminate fatally, and in only two of the twelve that died.

One of the most remarkable circumstances about the dropsy accompanying this disease is, that cellular infiltration always precedes serous effusion. This infiltration generally commences in the lower limbs, and the part which is the seat of it offers considerable resistance to pressure. They rarely, says Dr. S., acquire the size which is sometimes observed where the infiltration is owing to disease of the heart. My own limited observation does not accord with this assertion. In two cases which occurred last summer at the Pennsylvania Hospital, the anasarca was very great, and in one of them it was enormous, so that the skin in every part seemed to be distended almost to its utmost limits. The dropsy is usually limited to the cellular tissue, but sometimes it extends to the serous cavities. Thus in eighteen of the twenty-eight cases under consideration, the anasarca was simple, whilst in the remaining ten it was complicated with various serous effusions; of these latter, ascites is the most common, and differs from that following disease of the liver, &c., only in the less degree of distension of the abdomen.

According to Dr. S., the disease presents itself both under an acute and chronic form. When acute, it is very rapid in its course, and terminates favourably if the patient is not carried off by some other disease. In others its course is slower, the disease being as it were latent, and giving rise to no other symptoms but albuminous urine, the existence of which is only discovered accidentally; at a later period, infiltration of the limbs comes on: here a part of the substance of the kidney is already altered in texture, but the greater part is healthy; the urine contains only a small portion of albumen, and preserves most commonly its natural colour; urea and salts are still found in it in considerable quantities. This condition may remain stationary for some time, or may terminate favourably. The disease progressing, however, by the more extensive alteration of the kidney; the urine becomes colourless and inodorous, gives an abundant albuminous coagulum, and is only of the specific gravity of 1.004 or 1.008. Sometimes the succession of symptoms does not take place as above stated, but the disease is already far advanced before the patients are aware of its existence.

Diagnosis.—Whenever, in examining the urine of a dropsical patient, we find an abundant coagulum constantly result from the application of heat and nitric acid, we may affirm that the kidneys are probably the seat of Bright's disease. Some exceptions, however, occur, though rarely, which may be distinguished, says Dr. S., by the following symptoms:—"The urine is habitually of a natural colour; it has preserved in part its odour, and lost but little of its constituent principles; the amount of albumen contained in it is slight: there exists some other cause, as disease of the heart or liver for example, which accounts for the dropsy, &c., &c. When, on the contrary, the urine has lost its natural density and colour, when it precipitates abundantly by nitric acid, or becomes turbid by the application of heat, there is no longer any possible doubt; the dropsy depends upon disease of the kidney, and not upon any other cause. Facts prove this most conclusively." pp. 241, 242.

As regards the distinction between Bright's disease and nephritis, our author observes, "that Mr. Rayer thought he was establishing an important difference between these affections, in giving to Bright's disease the name of albuminous nephritis. We do not assert that albumen exists in the urine of all patients affected with nephritis;" * * * * "but it seems probable that it is so in most cases, for we can affirm that it presented this character in the four patients attacked with acute or chronic nephritis, the only ones which have come under our observation for several years." pp. 246, 247.

These facts are important, and should lead to further investigation. The course of the disease, however, and the absence of œdema will readily distinguish nephritis from Bright's disease.

Prognosis.—It will be recollected that of the twenty-eight cases reported by our author, sixteen recovered; from whence it appears that the result is not always so unfavourable as has been supposed by some.

Having described the character of the disease, our author goes on to consider certain questions belonging to its pathology. As regards the nature of the pathological alteration of the kidneys he says, "that what we observe most frequently at the commencement of the disease would seem to indicate the development of a peculiar irritation of the kidneys, under the influence of personal predisposition and the afflux of blood." This *hyperemia*, commencing in the cortical, and extending to the tubular substance, finally causes a modification in the nutrition of the organ, from whence arise the various forms of degeneration which belong to the disease. In two of the fatal cases, where death was occasioned by intercurrent affections, the kidneys presented this hyperemic condition without other change. The six cases of a more or less acute character, which terminated favourably, are referred to the same category. Without entering into a critical examination of these cases, the interpretation of which certainly admits of some doubt, we would merely observe that it seems to us unreasonable to refer to an irritation, the first stage of a disease which, in a majority of cases, does not present any of the characters which belong to such a state. Thus in the majority of cases, according to Dr. S. himself, there is no pain in the lumbar region, either spontaneously or by percussion. Even when pains did exist, they were not acute, and disappeared quickly when the disease became more severe; a circumstance very improbable if its progress depended upon the increase of an irritation. That the disease is very different from common inflammation our author himself admits, for he says, p. 251, that "these affections have nothing else in common except the fact of their being seated in the same organ." Why refer them both then to irritation, when in one the evidence of its existence is not to be found in a majority of cases? Is it not as easy, and much more in accordance with the facts, to suppose an alteration of nutrition independent of irritation, or of which the latter may only be an accidental and occasional accompaniment?

The next question which our author discusses is, whether the albuminous urine in Bright's disease, is dependent upon the morbid alterations of the kidney? A few cases are recorded in which very analogous symptoms have been observed, notwithstanding no such alteration of the kidney was found; and during the course of some acute diseases it is certain that the urine is sometimes albuminous for several days. These facts would seem to show that the kidneys are not necessarily affected in every case of Bright's disease. In the instances above alluded to, however, the urine does not present all the physical and chemical characters which it does in Bright's disease, nor does it contain albumen permanently, or in large proportion. Besides, not a single well characterised case, according to our author, has been adduced, in which the peculiar alteration in question of the kidney, has existed without albuminous urine. We agree with him then, in the justice of the conclusion, that the latter is dependent upon the former.

Omitting the discussion of several other questions, we shall proceed at once to give our author's view of the treatment. He says:

"Our results, based upon our own observations and those of others, show that the resources of nature alone are insufficient to overcome the disease, for it is owing oftentimes to its having been a long time left to itself, that it becomes incurable.

"Therapeutics supplies us with some resources with which to combat it. We may divide into two series the means which appear to us the most proper to dissipate the two morbid conditions which we have observed, in one of which there are the evidences of renal hyperemia, sub-inflammation or latent inflammation, and in the other, of altered nutrition, organic degeneration and the development of accidental productions. In the first, the medication will consist in the employment of sanguine depletion or antiphlogistics, together with the use of diuretics and revulsives; and in the second, in the continuation of diuretics and revulsives of a more active character, but more especially in the prescription of various modifiers of the nutrition, so well designated by the name of alterants, &c." p. 276.

Of these remedies there are some which are suited to both forms, and these are first spoken of.

In the early stages bleeding is very important, and often, according to our author, exerts as powerful an influence in arresting the progress of the disease as in overcoming an inflammation. At a later period, also, it is somewhat serviceable, but in the advanced stage, is rarely productive of any marked advantage.

Diuretics.—After remarking that in a healthy state of the kidneys, we may employ indiscriminately almost any diuretic, he observes that, "in Bright's disease where our object is not merely to procure diuresis, but to modify the organic condition itself, the use of this species of medication demands much greater precaution. We shall not obtain from diuretics, which are in this case direct modifiers of the diseased organs, the desired advantages, unless we have reference to the diseased condition of these organs, whether they are the seat of simple hyperemia, or of positive change of structure. In the first, which constitutes the acute variety or stage of the disease, mild diuretics will undoubtedly be preferable; in the second, where the disease has passed into the chronic stage or form, the stimulant or rather *alterant* diuretics may accomplish the desired indication." p. 279.

Thus in the stage of hyperemia, he recommends acidulated drinks with nitre, gum water, flaxseed tea, cream of tartar water, &c." In cases where the kidneys are less excitable, digitalis in powder, and especially in infusion, also the infusion of horse-radish may be employed. These remedies, however, so useful in the early stages, exert but little influence when the disease is more advanced. Here we must have recourse to stimulant and tonic diuretics, and especially the squills, either alone or combined with calomel, opium, &c., according to circumstances. The oxymel and the bitter diuretic wine of La Charité, in which latter, it is combined with several tonics, are preferred by our author, who thinks that these preparations have been decidedly useful in cases where the disease was passing into the second stage. Various external revulsives should be employed, and especially the tartar emetic plaster.

Our author speaks very favourably of the action of purgatives, which may produce a useful revulsion at the same time that they unload the cellular tissue and serous cavities. He is not afraid of the inordinate irritation of the intestines so much dreaded by some, and which he thinks is occasioned in the hands of the English practitioners by the common admixture of calomel with their purgative medicines. He prefers the hydragogue cathartics, the least irritating of which, however, must be chosen and at the same time cautiously managed. The oil of the Euphorbia lathyris, and the juice of the root of the European elder are particularly recommended. When the above remedies fail, *alterants* must be resorted to. Of these mercury was chosen by our author. Instead of calomel "which so often produces salivation" he made use of mercurial ointment in pills, which he thought less likely to cause the same effect; a drachm of the ointment was generally combined with two scruples of medicinal soap, sometimes a scruple of powdered squills, or of conium, and three to six grains of extract of opium; the mass was then divided into twenty-four pills, of which from one to three or more were taken in the twenty-four hours. In three out of eight cases in which they were tried, the symptoms entirely disappeared under their use. In two of the five which were not benefitted, the disease appeared to be far advanced, and in two others the great irritability of the mucous membrane of the intestines prevented the continuance of the remedy. Having remarked, that the above cases were too few in number to enable us to draw any positive conclusion, he observes:

"However, it is observable, that it was only when they produced salivation or diarrhœa, that these pills were not efficacious, * * * ; that their revulsive action was not advantageous, and that on the contrary, they were really as useful, only where they acted as alterants."

Having laid before the reader a general view of the treatment employed, we shall merely allude to one or two remaining observations upon minor points of practice. When speaking of the necessity of employing remedies for the purpose of relieving the patient from the inconvenient accumulation of water in the serous cavities in cases where the renal disease is far advanced, Dr. S. observes, that this condition of the kidneys prevents our deriving much advantage from the use of diuretics, since the secretion of urine rarely becomes so abundant as to occasion the disappearance of thoracic and abdominal effusions. It would not be desirable indeed, he thinks, that it should be abundant, as it would necessarily carry off a large proportion of albumen. He prefers employing for the relief of the symptoms in question, hydragogue cathartics, which may, perhaps, at the same time produce a favourable change in the kidneys themselves, by means of their revulsion upon the intestinal canal. As the blood contains a larger amount of water than natural, as well as less albumen, he recommends a full diet, and to endeavour to give to the blood its proper stimulating and plastic qualities, by means of ferruginous and bitter preparations. The second part of the work before us, is occupied with the consideration of the modifications of the urine at the critical period of acute diseases. In the course of his experiments upon the urine in Bright's disease, it became an object to examine whether the fluid was not also coagulable under other circumstances. The result was, that this property was found to exist at the period of resolution of many acute diseases. This fact, he thinks, as undoubtedly it is, of great importance in the study of the crisis of these affections. The urine under these circumstances presents itself to our notice under two different conditions.

1st. Where it coagulates or becomes turbid by the action of heat or other agents, which is called "COAGULABLE *urine.*"

2d. Where the same effect is produced by several reagents, especially the acids, but where the matter precipitated differs essentially from the first, since it is dissolved by heat. This urine is called "*precipitable.*"

In seventy-eight cases of acute disease, consisting of typhoid fever, pleuro-pneumonia, &c., the urine was found coagulable by heat or precipitated by nitric acid in sixty-two. The facts connected with most of these cases are particularized, and many of them reported in detail. They seem fully to establish the following conclusions drawn from them by our author, viz:

"That the urine becomes coagulable by heat, or precipitable by nitric acid, during the course of acute diseases; that sometimes the phenomenon shows itself at indeterminate periods, but is then but slightly marked; that in some cases it does not occur, notwithstanding that the disease terminates favourably; but that most commonly it shows itself towards the crisis of acute affections, and indicates their favourable termination." pp. 397, 398.

Of the sixty-two cases above mentioned, the urine was found coagulable by heat in only twelve cases, whilst it was precipitable by nitric acid in the remaining fifty. The fact of its coagulation by heat is sufficient proof of the presence of albumen in the first series, but in these cases, nevertheless, the urine differed from that found in Bright's disease, in containing a larger proportion of saline or other principles. As regards the nature of the precipitate formed by nitric acid, when the action of heat did not cause a coagulum, our author, after a careful investigation of the subject, comes to the conclusion:—

"That *critical precipitable urine* owes its properties to an excess of urea, uric acid and urate of ammonia." p. 424.

The third part of the work contains the exposition of some facts relative to the existence of the principles of the bile under certain circumstances in several of the animal fluids, especially the blood and urine. The presence of bile was indicated by the green tint produced by the addition of a few drops of nitric acid to the fluid containing it. Besides this, other changes of colour are sometimes produced, occurring in the form of zones. From the facts brought forward, it would seem that the diffusion of the principles of the bile in several of the animal fluids, particularly the blood and urine, takes place at least under the three following circumstances:

1st. As a consequence of the production of tumours, &c., which impede the passage of the bile into the intestines.

2d. As a consequence of inflammation of the liver or its appendages, jaundice, &c.

3d. In connection with the secretory disorder designated by the name of "*bilious state*" by the older pathologists.

These results are highly interesting, and, if confirmed, will at least afford an additional means of determining the existence of disorder of the liver in cases where it would otherwise be very doubtful. T. S.